

Report on a feasibility study for a resource sharing network among anglophone university libraries (except Nigeria) participating in AERC's collaborative MA programme in economics

By

Benzies Y. Boadi

*Department of Library and Information Studies
University of Botswana,
Gaborone, Botswana*

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I. Introduction

Background

In July 1993, the African Economic Research Consortium (AERC) sponsored a workshop for economics librarians from anglophone universities participating in AERC's Collaborative MA Programme (CMAP) in Economics (except Nigeria, for which a similar programme has been planned separately). The workshop was organized in Gaborone, Botswana, by the University of Botswana library in collaboration with the Department of Economics, Higher Education Development Unit (HEDU), and the Department of Library and Information Studies, all of the University of Botswana.

The purpose of the workshop was "to explain the main elements of the [Collaborative MA] programme, point out the role of the library and librarians in implementing the programme and, indeed, establish the necessary link between the programme and economics librarians in particular and the university libraries in general". Additionally, the workshop was to encourage discussion of the needs of students and faculty in the programme, focusing on how such needs could be met; to look into the use of information technology in the organization and use of the information resources; and to investigate the possibilities for collaboration and a resource sharing network among the participating libraries. The expectation was that at the end of the workshop, a foundation for the envisaged collaboration would have been firmly established (Lyakurwa, 1994).

Resolutions passed at the end of the workshop were grouped into two broad categories: cooperation within the individual universities, and cooperation among participating universities. Under the latter was the specific resolution that: "Given the different levels of information technology, automation, etc. [in participating libraries] a field study should be carried out with a view to making more detailed recommendations for inter-university cooperation" (Resolution 7 (vii), Section 2) (Belay, 1994). Subsequently, AERC engaged the services of the Consultant to carry out the field study and to make the necessary recommendations. A proposal for the study was submitted to AERC by the Consultant after which AERC defined the terms of reference for the study.

Terms of references

Actual terms of reference

In a letter, ref. MA/SP/94/01 of 27 October 1994, the terms of reference (subsequently revised in a letter of 29 November 1994) were defined as follows:

- The overall purpose of this consulting contract is to carry out a feasibility study for a network for resource sharing among seven anglophone African university libraries participating in the Collaborative MA Programme in Economics.
- [Specifically] the scope of work will include the following:
 1. To examine the state of the libraries, including:
 - levels of stock relating to economics
 - levels of automation (infrastructure/technology)
 2. To define a course for inter-university networking among libraries in support of the Collaborative MA Programme
 3. To determine financial implications of the network for:
 - individual libraries
 - external funding
- The study should be carried out during the period 15 November 1994 and 15 February 1995, and should cover the following six Category B universities and one Category A university:
 - University of Dar es Salaam
 - University of Zimbabwe
 - University of Ghana
 - University of Addis Ababa
 - University of Botswana
 - University of Nairobi
 - Makerere University

Elaboration of terms of reference by consultant

In the project proposal, the Consultant had suggested that the feasibility study cover all the participating universities, Category A and Category B alike. It was felt that this would ensure that the study that was comprehensive and would, consequently, also ensure the

arrival at conclusions and recommendations that were as generally applicable as possible. Although AERC agreed to the suggestion in principle, the scope of the study was limited to the seven institutions because of “budgetary constraints”. However, as AERC suggested, “if there is any way information from the other libraries in the programme could be incorporated in the study this would be greatly appreciated”.

In view of the need for the expressed comprehensiveness of the study, the Consultant decided to extend the study beyond the seven institutions named in the terms of reference to embrace all the participating institutions but, in agreement with AERC, to limit the number of the proposed study visits (as part of the instruments for the collection of information) to the institutions named in the terms of reference. With the expanded scope it was obvious that the study could not be completed within the time frame stipulated in the terms of reference. The completion time, therefore, had to be re-scheduled.

Principles of resource sharing and networking

Before discussing the methodology used in the implementation of the study, it would be good to look, briefly, at some of the principles of resource sharing and networking on which the study was based. Resource sharing may be said to be the process by which a group of libraries, information centres, etc., decide to make their resources available for the common use and benefit of all members of the group. It means a partnership in which each member has something useful to contribute to the others and is willing to make this available when needed. It is, essentially, a pooling of resources, a cooperative undertaking for increased capability, greater user satisfaction and economy of effort. “Pooling resources”, however, has the implication of presupposing the existence of the resources to be pooled, and it also implies the planned organization and development of the resources to facilitate their pooling and subsequent sharing. These conditions should form the bedrock of a resource sharing venture. A “network” is, essentially, an interconnected group or system. A library and information network is, therefore, a group of libraries or information centres that are interconnected or linked for the purpose of resource sharing.

Cooperation, as a concept, is not new among African universities. Cooperative ventures, from the general to the specific, have been established among various African universities with the intent of increasing the capabilities of the cooperating institutions in identified areas of interest. One example is the Association of African Universities, which was founded in 1967 to promote exchanges, contacts and cooperation among university institutions in Africa, to study and make known educational and related needs in Africa, and to coordinate the means whereby the identified needs may be met.³ The establishment of AERC and the institution of the Collaborative MA Programme in Economics is yet further evidence of the acknowledged importance of pooling available resources for greater efficiency and effectiveness.

Cooperation is not new to libraries and librarianship either, and many cooperative schemes have been established in the past among African libraries, including university libraries. The hope has been to extend the accessibility of the cooperating libraries to a wider range of document and information resources – wider than the range normally

available to them— and the schemes have covered such areas as inter-library lending, the exchange of documents, the collection, coordination and dissemination of information of general interest, etc. There is, for example, the Standing Conference of African University Librarians (SCAUL), which was set up in 1964 to support and develop academic libraries in Africa by, among others, promoting interchange, contact and cooperation among the libraries and by collecting, coordinating and disseminating information on academic library activities particularly in Africa. Such is the growing realization of the relevance of cooperation and resource sharing that over the past decade or so groupings of various kinds have been established for various purposes among academic libraries in both developed and developing countries but especially in the developed countries. The ultimate aim of these collaborative ventures is, obviously, to enhance the capabilities of the academic libraries to fulfill their functions of supporting the teaching, learning and research programmes of their parent institutions, offer community services, and operate as centres of excellence and innovation.

These developments notwithstanding, some of the cooperative ventures have had little to show for their efforts. In fact, some of them, especially those in developing countries, have been abysmal failures and one commentator has referred to such failed schemes rather gloomily, but aptly, as representing nothing but “tombstones [acting] as memorials to the cooperative projects that died or the corpses that barely cling to life”. There are reasons for this state of affairs. Certain preliminary steps need to be taken, and certain conditions need to exist to give a library cooperative venture of whatever hue any chance of success. The high failure rate of the cooperative schemes stems largely from the insufficiency of the attention paid to these prerequisites or, in some instances, their total neglect. The planning of a network for resource sharing will have to give serious attention to such vital cooperation and networking issues as the establishment of a formal organization within which the network will cooperate, a review of the available resources and a system for their joint development and use, the provision of financial support, and where necessary, a mechanism for the evaluation of the progress of the venture.

In addition to these prerequisites, there ought to be, among the participating libraries, an appreciation of the need to cooperate, an acceptance of responsibility for the scheme and an unwavering commitment to the cause of the venture. Adherence to these principles is critical to the success of the scheme and it is upon these principles that this study has been based.

Methodology

Questionnaire

The main method for carrying out the study was the use of a comprehensive questionnaire (see Appendix I) that was distributed to all 18 participating libraries.¹ The questionnaires were followed by study visits to the seven universities (six Category B universities and one Category A university) specifically cited in the terms of reference. The questionnaires

and the visits were supported by available relevant literature on the libraries and their parent institutions as well as literature on similar resource sharing schemes elsewhere.

The reason for using the questionnaires, supplemented by the visits, was to permit the collection of as much information as possible on the existing resources in economics among the participating institutions. For the purpose of the study, “resources” was taken to mean the sum total of all the elements (i.e., materials, functions and services) that constitute a library. “Materials” was defined as all of the imprinted material which a library handles together with such non-traditional items as machine readable databases, etc., while “functions” was interpreted as those activities and procedures used to relate the users to the materials.

The expertise of the staff as well as the available financial support were considered as constituting important components of the resource since it is the amalgam of the people, the materials, the services and the money that forms the substance of a library and can therefore be described as its resource. The questionnaire was prepared on the basis of these definitions and framework, and was divided into the following major sections: general information (about the library), document/information resources, services provided, equipment (including resources in information technology), library automation, library cooperation, staffing, funding, departmental/faculty libraries, and comments.

The questionnaires were mailed to the participating libraries on 20 March 1995 with 8 May 1995 as the suggested deadline for the return of completed questionnaires. The first completed questionnaire was received, within the suggested time, on 5 May 1995 while the last one was received (it was actually collected personally by the Consultant during his study visits) on 1 March 1996. Between the two dates it took all available means (e-mail, fax, telephone and telex messages) by the Consultant (and in some cases the intervention of AERC) to have a large proportion of the questionnaires returned. The apathetic response to the questionnaires inevitably adversely affected progress on the project and caused considerable delay in the conclusion of the study.

Study visits

As stated earlier, the questionnaires were supplemented by visits to seven of the participating universities. Visits were made to the libraries and departments of economics of the universities and afforded the Consultant the opportunity to meet the librarians and heads of department and to discuss the project with them, clarifying issues and generally acquiring additional useful information. The first round of visits took place from 25 February to 9 March 1996 and the second and final round was undertaken from 26 May to 3 June 1996. The additional information obtained was incorporated into the information already at hand and all has been analysed in the next chapter. (Although Kenyatta University and Cape Coast University were not specifically mentioned in the terms of reference as places to be visited, the Consultant took advantage of his visit to Nairobi to visit Kenyatta University and his visit to Ghana to visit Cape Coast University.)

II. Survey and analysis of existing resources in economics

The analysis of existing resources in economics is based on completed questionnaires from all 18 CMAP universities as well as additional information obtained during the Consultant's study visits to seven of the participating institutions. As explained in the preceding chapter, "resources" was interpreted to mean the sum total of all the activities that constitute a library and this interpretation is reflected in the analysis.

The purpose of the analysis is twofold. It intends first, to give an idea of the nature and, where applicable, the quantity of the resources available, and, second, to help identify the strengths and weaknesses of the resources. It is therefore both a quantitative and a qualitative analysis from which, hopefully, the necessary corrective measures will be taken. It has not always been possible to distinguish resources such as equipment (computers, word processors, etc.) for economics per se from resources in, or meant for, other subject areas, but where distinction between the resources is possible, such distinction has been made.

General information

This section of the questionnaire requested information on the libraries. From the information obtained, a *Directory of Libraries Participating in the MA Programme* has been compiled giving the names of the university librarians, mailing addresses, telephone, fax and telex numbers, and, especially, the e-mail addresses and the names of economics librarians or contact persons for the programmes. (See Appendix II).

It is hoped that the directory will facilitate communication among the participating libraries but, like all directories, it is likely to go out of date quickly. It will, therefore, need to be updated frequently to maintain its usefulness.

Document/information resources

Recommended textbooks

At the onset of the Collaborative Programme, the Academic Board of AERC produced reading lists (of textbooks, reference books, periodical and serial articles) in the three areas of microeconomics, macroeconomics and quantitative methods, which are the three

declared interest areas of the programme. The aim of this section of the questionnaire was to study the stocks of the participating libraries in those three areas, focusing attention specifically on the recommended reading lists. The reading lists for the textbooks, reference books and periodical and serial articles were therefore duplicated and attached to the questionnaires as appendixes. There were no recommended periodical or serial articles for quantitative methods. The libraries were asked to indicate which of the books and articles they had in stock and for those not in stock which of them they had, or had not, ordered.

Out of the 46 recommended textbooks for microeconomics, the number of items already available in the libraries ranged from 3 (6.5%), the lowest, to 29 (63%) the highest (see Table 1 for detailed analysis). For macroeconomics, the highest number in stock, out of the 16 recommended items, was 10 (62.5%), with one library having absolutely none of the items in stock (Table 2). Thirty-five items were recommended for quantitative methods. Twenty-three (65.7%) was the highest number available in any of the libraries, while the lowest was two (see Table 3).

Table 1: Availability of recommended textbooks: Microeconomics (no. of recommended items 46)

University	No. (and percentage) of items in stock	No. of items ordered but not received	No. of items not ordered	Remarks
Addis Ababa	16 (34.7%)	None	26	
Botswana	29 (63%)	17	None	Items ordered but not received reported out of print
Cape Coast	10 (21.7%)	None	36	
Dar es Salaam	16 (34.7%)	None	30	
Eduardo Mondlane	-	-	-	Did not indicate
Ghana	15 (32.6%)	None	31	
Kenyatta	14 (30.4%)	*	*	Remaining 32 items indicated as "Not in stock or on order"
Lesotho	21 (45.6%)	None	25	
Makerere	15 (32.6%)	None	31	
Malawi	15 (32.6%)	None	31	
Mauritius	21 (45.6%)	None	43	
Moi	3 (6.5%)	None	43	
Nairobi	28 (60.8%)	None	15	
Namibia	9 (19.5%)	None	37	
Sierra Leone	10 (21.7%)	None	36	
Swaziland	15 (32.6%)	None	31	
Zambia	-	-	-	Did not indicate
Zimbabwe	23 (50%)	None	23	

Table 2: Availability of recommended textbooks: Macroeconomics (no. of recommended items: 16)

University	No. (and percentage) of items in stock	No. of items ordered but not received	No. of items not ordered	Remarks
Addis Ababa	4 (25%)	None	12	
Botswana	10 (62.5%)	6	None	Items ordered but not received reported out of print
Cape Coast	8 (50%)	None	8	
Dar es Salaam	6 (37.5%)	None	10	
Eduardo Mondlane	-	-	-	Did not indicate
Ghana	9 (56.2%)	None	7	
Kenyatta	7 (43.7%)	*	*	Remaining 9 items indicated as "Not in stock or on order"
Lesotho	10 (62.5%)	None	6	
Makerere	3 (18.7%)	None	13	
Malawi	12 (75%)	None	4	
Mauritius	10 (62.5%)	None	6	
Moi	0 (0%)	None	16	
Nairobi	9 (56.2%)	None	7	
Namibia	3 (18.7%)	None	13	
Sierra Leone	8 (50%)	None	8	
Swaziland	8 (50%)	None	8	
Zambia	-	-	-	Did not indicate
Zimbabwe	8 (50%)	None	8	

Source:

Four periodical and serial articles were recommended for microeconomics and 55 for macroeconomics. Availability of the recommended items for microeconomics ranged from 100% (in three of the libraries) to 0% (in four libraries). (See Table 4.) Out of the 55 recommended items for macroeconomics, there was an availability range of 45 (81.8%) to 3 (5.4%). (See Table 5.)

At the time of the survey, virtually none of the libraries had ordered any of the items that were not available in their libraries. The single exception was the University of Botswana Library, which had ordered the textbooks it did not have in stock. And, as it transpired, that library was the only library that had been made aware of the recommended reading lists by its sister department of economics when the lists were issued. For the most part, the libraries first knew of the existence of the lists when they received the questionnaire. Whichever books, periodicals or serial articles on the lists that were in the libraries had been acquired by the libraries in their normal collection development programmes and not a result of a deliberate acquisition programme pursued in support

Table 3: Availability of recommended textbooks: Quantitative methods (no. of recommended items: 35)

University	No. (and percentage of items in stock)	No. of items ordered but not received	No. of items not ordered	Remarks
Addis Ababa	13 (37.4%)	None	22	Items ordered but not received reported out of print
Botswana	23 (65.7%)	13	None	
Cape Coast	12 (34.2%)	None	23	Did not indicate
Dar es Salaam	21 (60%)	None	14	
Eduardo Mondlane	–	–	–	
Ghana	13 (37.1%)	None	22	
Kenyatta	6 (17.1%)	–	–	Remaining 29 items indicated as "not in stock or on order"
Lesotho	15 (42.8%)	None	20	
Makerere	8 (22.8%)	None	27	Did not indicate
Malawi	16 (45.7%)	None	19	
Mauritius	11 (31.4%)	None	24	
Moi	2 (5.7%)	None	33	
Nairobi	22 (62.8%)	None	13	
Namibia	8 (22.8%)	None	27	
Sierra Leone	8 (22.8%)	None	27	
Swaziland	10 (28.5%)	None	25	
Zambia	–	–	–	
Zimbabwe	18 (51.4%)	None	17	

Table 4: Availability of recommended periodical and serial articles: Microeconomics (no. of recommended items: 4)

University	No. (and percentage of items in stock)	No. of items ordered but not received	No. of items not ordered	Remarks
Addis Ababa	3 (75%)	None	1	Remaining 3 items indicated as "not in stock or on order"
Botswana	2 (50%)	None	2	
Cape Coast	0 (0%)	None	4	
Dar es Salaam	4 (100%)	–	–	
Eduardo Mondlane	1 (25%)	None	3	
Ghana	4 (100%)	–	–	
Kenyatta	1 (25%)	–	–	
Lesotho	0 (0%)	None	4	Did not indicate
Makerere	1 (25%)	None	3	
Malawi	–	–	–	
Mauritius	2 (50%)	None	2	
Moi	0 (0%)	None	4	
Nairobi	4 (100%)	–	–	
Namibia	0 (0%)	None	4	
Sierra Leone	3 (75%)	None	1	
Swaziland	1 (25%)	None	3	
Zambia	–	–	–	
Zimbabwe	4 (100%)	–	–	

of the Collaborative MA Programme. Since the disclosure of the existence of the recommended lists, some of the libraries have started to acquire the recommended materials purposefully in support of the programme.

Table 5: Availability of recommended periodical and serial articles: Macroeconomics (no. of recommended items: 55)

University	No. (and percentage) of items in stock	No. of items ordered but not received	No. of items not ordered	Remarks
Addis Ababa	27 (49%)	None	28	
Botswana	30 (54.5%)	9	16	
Cape Coast	6 (10.9%)	None	49	
Dar es Salaam	20 (36.3%)	None	35	
Eduardo Mondlane	11 (20%)	None	44	
Ghana	31 (56.3%)	None	24	
Kenyatta	8 (14.5%)	*	*	Remaining 47 items indicated as "Not in stock or on order"
Lesotho	11(20%)	None	44	
Makerere	20 (36.3%)	None	35	
Malawi	-	-	-	Did not indicate
Mauritius	28 (50.9%)	None	27	
Moi	2 (3.6%)	None	53	
Nairobi	45 (81.8%)	None	10	
Namibia	3 (5.4%)	None	53	
Sierra Leone	23 (41.8%)	None	32	
Swaziland	13 (23.6%)	None	42	
Zambia	-	-	-	Did not indicate
Zimbabwe	32 (58.1%)	None	23	

Source:

The relative strengths of collections in microeconomics, macroeconomics, and quantitative methods

An important area of the study was to find out the strengths of the libraries' book collections in microeconomics, macroeconomics and quantitative methods. Therefore, relative to their collections in the three subject areas, the libraries were asked to rank the strengths of the collections from the strongest (ranked 1) to the weakest (ranked 3).

Table 6: The relative strengths of collections in microeconomics, macroeconomics and quantitative methods (ranked from the strongest [1] to the weakest [3])

University	Micro-economics	Macro economics	Quantitative methods	Remarks
Addis Ababa	1	2	3	Respondent's comment: "But in reality we are weak in all areas"
Botswana	1	3	2	
Cape Coast	1	2	3	
Dar es Salaam	3	2	1	
Eduardo Mondlane	2	1	3	
Ghana	1	2	3	Weak in all three areas
Kenyatta	3	3	3	
Lesotho	2	1	3	Equally strong in microeconomics and quantitative methods
Makerere	2	1	1	
Malawi	1	1	2	
Mauritius	3	2	3	
Moi	1	2	3	
Nairobi	1	3	2	
Namibia	1	3	2	
Sierra Leone	3	1	2	
Swaziland	-	-	-	
Zambia	3	2	1	
Zimbabwe	1	3	2	

Source:

Table 6 is a graphical representation of the ranking order by university. It must be noted that the exercise was not conducted as a comparative assessment of stocks held in the participating libraries, and neither was it an assessment of stocks against a standard list of books in those subject areas. Strengths and weaknesses as expressed are therefore relative only to a library's own collections. There could be situations (as indeed one respondent indicated was the case in his library) where, despite the ranking, libraries could be weak in all three areas. The ranking order (as represented in Table 6) would suggest, however, that collectively the libraries are relatively strong in microeconomics followed by macroeconomics, with quantitative methods being the weakest area.

Special collections/databases and CD-ROMs

Special collections are collections of books and other documents connected with local history, celebrities, industries, etc., or collections on a certain subject or period, or materials gathered for some particular reason. Very often these collections provide a rich source of information; information that in some cases may be quite unique. Too often, however, it is thought that such materials, especially those that relate to a specific locality, are of local interest only. While this local interest is of vital importance and accounts for most of the use of these materials, such collections very often make valuable contribution to national, regional and even international scholarship.

It was with this view in mind that the participating libraries were asked to indicate any special collections in economics that they may have or any subject areas in which they particularly specialize. The quest was not limited to local collections but was broadened to incorporate national, regional and international collections. The returns show a substantial assortment of resources that range from local/national collections (e.g., university theses and dissertations, government documents and reports.) to regional collections (e.g., documents of such regional organizations as ECOWAS, SADC and others) and international organizations (such as the United Nations and its agencies). (See appendixes IIIa and IIIb for lists of special collections.) It is hoped that knowledge of these collections will encourage wider interest in them and enhance their use among the participating universities.

For similar reasons that information was sought on possession of, or access to, CD-ROMs and databases on economics and related subjects. (See appendixes IVa and IVb for lists of databases and CD-ROMs.) Again, there is evidence of a fairly good collection of databases and CD-ROMs, knowledge of which will be invaluable to the resource sharing scheme.

Core/relevant journals

In further assessment of the document resources, the libraries were asked to list the core or relevant journals subscribed to in the three subject areas of microeconomics, macroeconomics and quantitative methods. "Core or relevant journals" was interpreted as the important, leading or required journals in those subject areas. The analysis of the journals shows a pattern that is similar to the book stocks; that is, there is a predominance of microeconomics over macroeconomics and quantitative methods, with quantitative methods being the least represented.

But probably more important for the purpose of the proposed resource sharing scheme is a *Union List of Periodicals on Microeconomics, Macroeconomics and Quantitative Methods*, which has been compiled from the lists of periodicals and holdings supplied by the participating libraries. A union list of periodicals, that is, a combined list of periodicals subscribed to by libraries in a resource sharing movement, is an indispensable tool in any resource sharing venture as far as the collective use of the periodical resources

is concerned. The absence of such an important “navigational guide” or locational device has spelt the doom of many a resource sharing scheme. It is intended that the present union list (see appendix V) will be the nucleus of a more comprehensive and regularly updated tool that will enhance the viability of the scheme.

Collection development/evaluation policies

Collection development policies are formulated by libraries with the objective of enabling document selectors to work with greater consistence towards defined goals. The policies help in informing users, administrators, etc., about the scope and nature of existing collections and in planning for future development of the resources. Collection evaluation, on the other hand, aims at assessing the usefulness and suitability of document collections against set objectives or purposes. These two processes (collection development and collection evaluation) should therefore be seen as vital processes for which libraries ought to have clearly laid down, and vigorously pursued, policies if their document collections are to be relevant.

Asked if they had written collection development and evaluation policies for the development and use of document and information resources in economics, virtually all the 18 libraries indicated that they had policies for the general development and evaluation of their resources. However, only six (33.3%) of the libraries had policies specifically for the development of their resources in economics, and only seven (38%) had policies for the evaluation of their resources in economics. Clearly these are areas requiring attention.

Services provided

Document resources are, obviously, meant to be used. Libraries therefore offer certain services and activities to ensure the maximum use of the resources. A section of the questionnaire was devoted to finding out which services the libraries provided to their users, particularly in economics. Although the indication is that most of the traditional library services (e.g., abstracting and indexing, current awareness services, the compilation of bibliographies literature searches) are provided, they are in most cases not exclusive to economics. It is good to know, however, that some of the libraries (the minority of them) provide some of the services specifically in economics.

Systems for identifying the information needs of users and for drawing their attention to the range of the stock and services available to them are used by libraries to ensure that users derive the maximum benefit from the services provided. These activities (identification of user needs, publicity or public relations and orientation/bibliographic instruction programmes) are, to a very large extent, carried out in the participating libraries. The activities are general in nature, however, and may be losing their essence. Systematic arrangements for carrying out these activities on a subject-related basis (in this case economics) would likely prove to be more beneficial.

Equipment

Various types of equipment are needed for the successful operation of a resource sharing network. They range from communication and reprographic equipment to computers, word processors, etc. The participating libraries were asked for information about the level of availability of these facilities in their libraries.

Communication equipment

The ability to communicate quickly and efficiently is crucial to the success of a resource sharing scheme. Information and documents may need to be communicated or moved from one participating library to the other with minimum delay and maximum efficiency. The level of availability of the communication equipment to a large extent determines the usefulness of the project.

The participating libraries were asked to indicate whether they possessed or had access to any of the following telecommunication equipment/facilities: telephone, telex, fax, e mail. They were also asked to indicate if the telecommunication equipment/facilities they possessed, or had access to, were adequate for their needs. According to the returns, all the libraries possess their own telephones with the exception of one, which has access only. Three (16.6%) possess telex facilities while 13 (72.2%) have access. Two (11.1%) neither possess nor have access to telex. Six (33.3%) possess their own fax machines and 11 (61.1%) have access only. One library neither possesses nor has access to a fax.

Although virtually all the libraries possess or have access to these facilities, with the known unreliability of telecommunication systems in most developing countries, it would be wrong to assume that the picture as presented here would ensure a reliable and efficient communication environment for the network. A lot more premium would, therefore, have to be placed on the possession of or access to e-mail facilities, which have proved to be considerably more dependable as communication media in the fast and efficient communication of information (and even some types of documents) within the network. It is thus gratifying to find that there is substantial availability of e-mail facilities in the participating institutions. Nine (50%) of the libraries have their own e-mail facilities and six (33.3%) have access. Only three (16.6%) neither possess nor have access to e-mail facilities. (See Table 7 for details of e-mail availability.)

In general, respondents expressed concern about the of inadequacy of the telecommunication facilities. Needs ranged from direct telephone lines to telex, fax and e-mail facilities. (See Table 8 for individual library needs.)

Computers, word processors and other IT hardware

With the increasing use of information technology (IT) in libraries and especially with the indispensability of its use for the successful operation of a resource sharing network, it was necessary to determine the level of IT availability in the participating libraries. The libraries were asked to indicate if they possessed or had access to computers, word processors, CD-ROM drives, etc.

Table 7: Availability of e-mail facilities

University	Status		Address	Remarks
	Possess	Access only		
Addis Ababa		X	Tayet@padis.gn.apc.org	
Botswana	X	-	Raseroka@noka.ub.bw (Librarian) Nyirendc@noka.ub.bw (Econs. Librarian)	
Cape Coast	X		Ucclib@ucc.gn.apc.org	
Dar es Salaam	X		Lib@unidar.gn.apc.org	
Eduardo Mondlane		X	-	Did not indicate
Ghana	X		Balme@ug.gh.apc.org	
Kenyatta	-	-	-	To have e-mail soon
Lesotho		X	-	Did not indicate
Makerere	X		Mli@mukla.apc.org	
Malawi	X			Did not indicate
Mauritius		X	-	Did not indicate
Moi	-	-	-	To have e-mail soon
Nairobi		X	Imalo@ken.healthnet.org	
Namibia		X		Did not indicate
Sierra Leone	X		Fbc.library.fbc@sl.baoab.comb	
Swaziland	-	-	-	
Zambia	X		Library@unza.zm	
Zimbabwe	X		Mainlib@uzlib.uz.zw	

Of the 18 libraries, 16 (88%) have computers; only 2 (11.1%) have access only. Thirteen (72.2%) have their own word processors, three (16.6%) have access only, and two (11.1%) neither possess nor have access to word processors. The availability levels for CD-ROM drives were the same as those for word processors, with 13 (72.2%) libraries possessing their own CD-ROM drives, 3 (16.6%) having access only, and 2 (11.1%) neither possessing nor having access to them.

Although the figures would suggest that the availability levels of computers, word processors and CD-ROM drives are impressively high, the actual availability is only superficial. Possession of (or access to) computers, etc., is in most cases limited to one or two for the whole library and is therefore grossly inadequate, as most of the libraries indicated. (See Table 9 for availability of computers, etc., and Table 10 for expressed needs.)

Table 8: Telecommunication requirements

University	Requirements
Addis Ababa	Own telex, fax and e-mail. Currently has access only.
Botswana	Access to Internet
Cape Coast	Fax; access to Internet
Dar es Salaam	Reliable telephone line; fax
Eduardo Mondlane	Direct telephone line; fax
Ghana	Three more telephone lines (one of which would be wholly for e-mail service); fax; telex
Kenyatta	Fax; e-mail
Lesotho	(No needs expressed. "Equipment so far adequate")
Makerere	Fax
Malawi	(No needs expressed. "Equipment adequate")
Mauritius	(No needs expressed. "Equipment adequate for needs")
Moi	(No needs expressed. "Fax and e-mail expected to be installed soon")
Nairobi	Fax; e-mail
Namibia	(No needs expressed. "Expecting e-mail soon")
Sierra Leone	More telephones. Currently has only one
Swaziland	Direct telephone lines; telex; fax, e-mail
Zambia	Internal public communication system
Zimbabwe	Another fax; dedicated e-mail station

Table 9: Availability of computers, word processors and CD-ROM drives

University	Computers		Word processors		CD-ROM drives	
	Possess	Access only	Possess	Access only	Possess	Access only
Addis Ababa		x		x		x
Botswana	x		x		x	
Cape Coast	x					
Dar es Salaam	x		x		x	
Eduardo Mondlane	x		x			
Ghana	x		x		x	
Kenyatta	x				x	
Lesotho	x		x		x	
Makerere	x		x		x	
Malawi	x		x		x	
Mauritius		x		x		x
Moi	x		x		x	
Nairobi*	x	x	x	x	x	x
Namibia	x		x		x	
Sierra Leone	x			x		x
Swaziland	x		x		x	
Zambia	x		x		x	
Zimbabwe*	x	x			x	

Notes: * Possesses and also has access

Table 10: Stated requirements for computers, word processors, etc.

University	Requirements
Addis Ababa	2 PCs; 1 CD-ROM drive
Botswana	(No expressed needs: "Equipment adequate")
Cape Coast	3 CD-ROM drives
Dar es Salaam	"Current computers not adequate". (Did not indicate specific requirements)
Eduardo Mondlane	2 PCs; 1 CD-ROM drive
Ghana	12 PCs; 4 CD-ROM drives
Kenyatta	2 PCs; 1 CD-ROM drive
Lesotho	6 PCs
Makerere	6 PCs; 10 CD-ROM drives
Malawi	10 PCs; 1 CD-ROM drive; 5 Word processors
Mauritius	(No needs expressed: "Equipment adequate")
Moi	(No needs expressed. "Equipment adequate")
Nairobi	12 PCs
Namibia	(No needs expressed. "Equipment adequate")
Sierra Leone	6 PCs; 6 CD-ROM drives
Swaziland	"Current equipment not adequate. Would need more computers and CD-ROM drives". (Did not indicate specific requirements)
Zambia	"Needs CD-ROM drives" (Did not indicate quantity needed)
Zimbabwe	4 PCs; 4 printers

Reprographic equipment

In a resource sharing scheme, documents will be requested from libraries by participating members that may not have such items in their own libraries. It may not always be possible, or indeed advisable, to send original copies of requested items. Copies may be rare, unique or too fragile to be posted, or it may be cheaper and faster to send surrogates instead of original copies. The assurance of efficient reproduction facilities within the network is therefore very important. An assessment of the availability of reprographic equipment in the participating libraries was carried out by asking members to indicate which reprographic equipment they possessed or had access to. Again, the libraries were asked to indicate the adequacy or otherwise of the reprographic equipment they were using.

Two libraries (11.1%), have only access to photocopying equipment; the remaining 16 libraries (88.8%) have their own photocopiers. Five (27.7%) have their own microreproduction equipment, while another five have access only; eight (44.4%) have neither their own facilities nor access to them. Fourteen (77.7%) possess microreader/printer facilities; two (11.1%) have access, while another two neither possess nor have access to any microreader/printer facilities; tables 11 and 12 show availability and needs, respectively).

Table 11: Availability of reprographic equipment equipments

University	Photocopier		Micro-production		Microreader/printer	
	Possess	Access only	Possess	Access only	Possess	Access only
Addis Ababa		x		x		x
Botswana*	x	x		x	x	
Cape Coast	x		x		x	
Dar es Salaam	x				x	
Eduardo Mondlane		x				
Ghana	x		x		x	
Kenyatta	x				x	
Lesotho	x				x	
Makerere	x				x	
Malawi	x				x	
Mauritius		x		x		x
Moi	x				x	
Nairobi	x		x			
Namibia	x			x	x	
Sierra Leone	x				x	
Swaziland	x		x		x	
Zambia	x		x		x	
Zimbabwe	x			x	x	

Note: * Possesses and also has access

Table 12: Reprographic equipment requirements

University	Requirements
Addis Ababa	1 photocopier; 1 microfilm camera; 1 microfilm reader/printer
Botswana	2 microfiche reader/printers
Cape Coast	2 photocopiers; 2 microfilm reader/printers
Dar es Salaam	2 photocopiers
Eduardo Mondlane	1 photocopier
Ghana	2 photocopiers; 1 microfilm reader/printer
Kenyatta	1 photocopier, 1 duplicator; 1 scanner
Lesotho	4 photocopiers
Makerere	1 photocopier; 1 microfiche printer/reader
Malawi	5 photocopiers
Mauritius	(No needs expressed: "Equipment adequate")
Moi	(No needs expressed. "Equipment adequate")
Nairobi	1 photocopier
Namibia	(No needs expressed. "Equipment adequate")
Sierra Leone	1 photocopier; equipment for microreproduction microreaders (Type and quantity not indicated)
Swaziland	Photocopiers; microfilm and microfiche reader/printers (Quantity not indicated)
Zambia	1 photocopier (card-operated)
Zimbabwe	4 photocopiers

As may be seen from Table 12, despite the seemingly high level of availability of reprographic equipment, there still is an expressed need for a substantially more reprographic equipment, especially photocopiers.

Library cooperation

Library cooperation is the essence of resource sharing, giving meaning and reality to the concept. Resources can only be shared if libraries have agreed to pursue programmes to that end, and libraries can engage in cooperative programmes in virtually all areas of library activity. These activities may range from cooperation in the development and organization of the resources to cooperation in the use of the resources, and may cover such specific areas of activity as acquisitions, reference, inter-library lending, gifts/donations of publications, and publication exchanges. With the main focus of this project being an investigation into the possibilities of a resource sharing scheme among universities participating in the MA Programme, it was obviously important to establish if there already existed any cooperative arrangements among the libraries.

The indications are that although the libraries engage in various forms of cooperative activities, there is minimal interaction among the libraries participating in the programme. The only area in which there seems to be a fair amount of activity is inter-library lending, with only two libraries (11.1%) not engaged in that activity with any of the participating libraries. However, the inter-library lending that does take place among the libraries seems to be limited to only a handful of the libraries and the activity is carried out on an ad hoc basis since there are hardly any union lists of periodicals or union catalogues of books from which the inter-library lending requests are made.

Nine (50%) of the libraries engage in publication exchange programmes with participating libraries but only one library is engaged in a document (books, periodicals, etc.) donation programme. These activities, when properly pursued, help enrich the total resources of a resource sharing group and should therefore be encouraged.

Staffing

The successful implementation of a resource sharing programme depends on the availability of the right personnel—people who are not only qualified but are motivated and dedicated to the cause of the programme. The participating libraries were requested to indicate if: (a) they had staff who were specifically responsible for the development of document and information resources on economics, (b) any programmes (formal or informal) had been instituted to help the staff to keep up to date with developments in economics and, in particular, its teaching and study in their universities (e.g., programmes like seminars, workshops, consultations with faculty), and (c) they had staff visit/exchange programmes with any of the participating libraries.

Six (33.3%) of the libraries do have staff specifically responsible for the development of document and information resources in economics, while three (16.6%) have social sciences librarians who handle economics along with other subjects. The remaining nine libraries (50%) have no specifically designated economics librarians. However, all of them (including even those without economics librarians) have contact persons for the programme. (See Appendix II.) This is a good policy and should be maintained to facilitate communication among the libraries.

Respondents indicated that the libraries use various methods to keep their staff up to date with developments in economics. These methods include seminars, workshops, etc., organized by the economics departments, with the libraries themselves also organizing some such events for the staff. Consultation with faculty, attending faculty board meetings, reading book (and other) reviews on economics, among others, also help keep the staff up to date.

Ten of the libraries (55.5%) use a combination of these methods to keep their staff up to date with developments in economics while the remaining eight libraries (44.4%) did not indicate the existence of a scheme of this (or any other) kind.

Another useful method by which staff can obtain information is the organization of staff visit/exchange programmes. Such programmes help in the acquisition of new skills and experiences. They also promote an atmosphere of confidence and understanding

among the participating institutions. Important as they are, staff visit/exchange programmes generally hardly feature in the activities of African university libraries. Logistical and funding problems are the major causes for the inability of the university libraries to organize the programmes. As one respondent put it, “Exchanges and attachments with sister African universities are difficult because of funding problems. The host [non-African] institutions have provided funding, which African universities are not in a position to do”. Another respondent mentioned “housing difficulties” as contributing to the problems. Not surprisingly, therefore, only 2 (11.1%) of the 18 libraries indicated that they had some sort of staff visit/exchange programme, but not specifically with any of the participating libraries.

Funding

Funding that is not only adequate but also continuing is essential to the successful operation of a resource sharing network. But adequate and continuing funding seems to be an unattainable dream as far as most of the participating libraries are concerned. One library indicated that its budgetary allocation was adequate (but with a note that it has “been having some funding from the World Bank for some time now”) and another library indicated that only its budgetary allocation for periodicals was inadequate. All of the other libraries bemoaned their inadequate financial provision, with various forms of expression to show the state of their predicament. Comments like “severely inadequate”, “grossly inadequate” and in one extreme case “Budget is not only inadequate, it is non-existent” vividly portray the gravity of the situation. (The last comment came from a library that had not received any budgetary allocations for books or periodicals for the past five consecutive years!)

Such severe financial constraints would have a debilitating effect on the effectiveness of any resource sharing scheme and steps would have to be taken to ameliorate the situation. The general financial inadequacy must account for the inability of the libraries to purchase required documentary resources, let alone such items as the computers, word processors, communication equipment, etc., that they need for the efficient performance of their functions.

Departmental/facility libraries

The participating libraries were asked to indicate if they had departmental/faculty libraries for economics. If they did, they were further asked to indicate if the libraries came under the management/administration of the main university library.

Any working relationship that existed between the main library and the departmental/faculty library was to be described and, for those that did not have any departmental/faculty libraries, the request was that they indicate if they had any intention of establishing such libraries in the future. Ten (55.5%) of the libraries do have departmental/faculty libraries, of which only two are under the administration and management of the main

library. Of the eight that have no departmental/faculty libraries, two have the intention of establishing them, five have no such intention and one did not declare its stand on the issue.

The question of the establishment or non establishment of departmental/faculty libraries is a matter of university policy. While some universities pursue strictly centralized library services and do not encourage (or even permit) the setting up of departmental/faculty libraries, others—especially the bigger universities—practice decentralized library services and in fact do encourage the establishment of departmental/faculty libraries. Both systems have their advantages and disadvantages but it is beyond the remit of this study to argue in favour of or against either system. What is of immediate concern is to find out the nature of the working relationships (if any) that may exist between the main libraries and the existing departmental/faculty libraries.

As noted, only two of the ten libraries with departmental/faculty libraries come under the direct administration and management of the main libraries. The inference here is that the departmental/faculty libraries are autonomous of the main libraries and are under the jurisdiction of the departments/faculties. This, indeed, is the case. Two of the responding libraries indicated that there was no working relationship whatsoever between them and their departmental/faculty libraries, while the others indicated that the working relationship that existed between them and their departmental/faculty libraries took the form of “assistance in the organization of the library”, the offering of “professional advice”, etc. However, if what the Consultant saw on his study visits to some of the universities can be taken as an index to what actually obtains, then the “working relationships” that exist between the main libraries and the departmental/faculty libraries can be described as tenuous at best. More serious thought and action would have to be taken to establish working relationships that actually work in reality.

Conclusion

This, then, is the picture of the existing resources in economics in the libraries participating in the MA Programme—a picture of the strengths and weaknesses of the documentary, human, financial and other resources. But arguably it is a picture of more weaknesses than strengths. The next chapter will suggest ways by which the resources may be strengthened and the structure on which the proposed network for resource sharing among the participating libraries may be built.

III. Discussion of findings, conclusions and recommendations

The existing resources in economics in the libraries of the 18 universities participating in the Collaborative MA Programme were analysed in the previous chapter, and the strengths and weakness established. This chapter takes the study further and discusses the possible improvement and mobilization of the resources for use in the proposed resource sharing network. This is done in the context of the criteria for the establishment of such resource sharing networks, and is accompanied by the necessary recommendations.

A Coordinating body

A network, as has been defined, is an association of a heterogeneous group of libraries with intrinsically different objectives and belonging to different organizational setups. There is an urgent need, therefore, for a coordinating body that provides mechanism for engendering the cohesion required to maintain it, as well as the administrative and management direction the network needs if its aims and objectives are to be achieved.

The coordinating body would formulate policies for the network, apportion responsibilities (fiscal, administrative, etc.) and generally oversee the implementation of the network. This entity and its function are often lost on network planners, a factor that has caused the failure of many a network. The importance of coordinating bodies may be gauged from the experience of one of the most successful networks, the SCANDIA Plan, a Nordic cooperative acquisition programme involving the major research libraries of Denmark, Finland, Norway and Sweden. The SCANVIA Plan operated for over ten years as a loose organization and had nothing much to show for its efforts. It was not until a coordinating body, the Committee of cooperation of Nordic Research Libraries, was formed to manage the scheme that it was transformed from the ineffective organization into an effective one. Too much reliance had been put on the voluntary principle and too much had depended on the enthusiasm for the cause. There was little or no coordination and little was done to ensure that member libraries were meeting their obligations under the scheme (Harrison, 1992). The SCANDIA Plan experience teaches the vital lesson that enthusiasm alone cannot sustain a resource sharing network.

In planning a network for resource sharing among the 18 CAMP university libraries, a strong recommendation is made, at this initial stage, for the establishment of a coordinating body to ensure that the venture is given a firm starting base. The coordinating body would operate under the aegis of the AERC, possibly as a subcommittee of the Academic Board.

The normal practice is for the participating members to decide on the composition (and functions) of the coordinating body, but to ensure immediate action it is recommended that a seven member coordinating body be formed comprising four Category B universities (Addis Ababa, Botswana, Ghana and Nairobi), two Category A universities (Makerere and Namibia) and the AERC library (represented by the Information Services Manager) as an exofficio, permanent member of the coordinating body. This proposed membership considers university categories as well as geographic representation. It must be stressed that this suggested arrangement is a temporary measure only and that the final form of the coordinating body, including membership, functions, etc., will have to be decided upon, at an appropriate time, by all the participating members.

A coordinating centre

In addition to the establishment of a coordinating body, which would be the policy formulating body, it is necessary to establish a coordinating centre that would be responsible for some of the administrative and professional duties that would need to be carried out in the implementation of the programmes of the network. Some of these duties will become apparent in subsequent recommendations. It is recommended that the AERC Library be designated the coordinating centre for that purpose and that it be given the necessary resources in terms of staff, equipment, financial support, etc., to enable it carry out the duties effectively.

Directory of participating libraries

Facilities for the promotion of efficient communication within a network are crucial to the success of the network. One such facility is a directory of participating members that contains contact addresses and other relevant information. Such a facility has been produced as part of this study to facilitate communication among the libraries participating in this resource sharing project. (see Appendix II). Like all directories, however, the importance and usefulness of this one will depend on its currency. Directories are notorious for getting dated quickly and this directory will be no exception. A system would therefore have to be devised for its regular updating if it is to remain a useful tool. The AERC Library, as the coordinating centre, would be the right place for that duty to be undertaken. The recommendation, therefore, is that the coordinating centre should assume the responsibility of constantly revising and keeping the directory up to date.

Document/information resources

Recommended textbooks

The survey of existing resources in economics in the participating libraries revealed very serious weaknesses in the availability of textbooks and other reading material recommended for the MA Programme by the Academic Board of AERC. These

weaknesses were apparent in all three subject areas of the programme (that is, microeconomics, macroeconomics and quantitative methods). Document/information resources, of course, constitute an important attribute of a library and information network but when, as in this case, the documents in question have been expressly recommended as essential reading material, then their widespread unavailability must be seen as nothing short of worrying, and urgent steps must be taken to change the situation.

One of the reasons for this state of affairs may be the lack of communication between the departments of economics and the university libraries. As noted earlier, only one library knew of the existence of the recommended reading lists prior to the receipt of the survey questionnaire (to which the reading lists were attached as appendixes). This lack of knowledge meant that it was not possible for the libraries to acquire the recommended items. In the ideal situation, libraries would be informed of courses or programmes or specifically recommended items in good time to enable them to make the necessary preparations before the course/programme actually begins. There is every reason to believe that in the course of running the MA Programme, old reading lists will be revised, new ones will be prepared and adjustments will be made periodically to specific courses within the programme. The recommendation therefore is that information about reading lists, prescribed textbooks, changes in the course structure and orientation, etc., should be communicated to the libraries, and in good time, to give them the opportunity of preparing adequately for the Programme.

Although it was stated in the previous chapter that some of the libraries started to make arrangements for the acquisition of the recommended items once they became aware of them, so precarious is the financial standing of virtually all the libraries (at any rate as of now) that it may be very difficult for most of them to find the financial resources with which to acquire the recommended items.

In view of the importance of the recommended items to the Programme, it is recommended that AERC consider assisting the libraries financially to enable them to acquire the items.

The relative strengths of collections

The importance or usefulness of a book collection depends on the strength of the collection— strength not only in terms of the size of the collection but also in terms of its relevance and currency. The analysis of the collections in participating libraries in microeconomics, macroeconomics and quantitative methods has shown that, collectively, the libraries are relatively strong in microeconomics, followed by macroeconomics and with quantitative methods as the weakest collection. Keeping a balanced collection can be achieved through having, and keeping to, a collection development policy as well as having a systematic collection evaluation programme. Although most of the libraries do have general collection development and collection evaluation policies, only a small proportion of them seem to have such policies specifically for economics and, therefore, by inference, only a small number of them are likely to have a discipline by discipline approach to collection development and, especially, collection evaluation. Rigorously

followed collection development and collection evaluation policies help to prevent (and redress) imbalances in library collections. The formulation of such policies is recommended for all the participating libraries, especially in the area of economics.

The survey revealed the existence of substantial special national, regional and international collections on economics. These collections include government publications, university theses and dissertations, and publications of various non-government organizations and the United Nations and its agencies, as well as a variety of other materials. Some of the libraries also have good collections of databases (on CD-ROMs) on economics and related subjects. Some of these collections, especially the national collections, are unique, and knowledge of their existence and range would be invaluable to the resource sharing scheme.' The recommendation, therefore, is that the coordinating centre (i.e., the AERC Library) should make the existence of these collections (as represented by Appendixes IIIa and IIIb and IVa and IVb) known to the participating libraries. The centre should also have the responsibility of keeping network libraries up-to-date by circulating new information about the special collections and CD-ROMs that is reported to the coordinating centre by the participating libraries.

Core/relevant journals

An assessment of the core/relevant journals subscribed to by the participating libraries showed a pattern that was similar to the book collections, with microeconomics having a slight edge over macroeconomics and quantitative methods still the least represented. As already recommended Section 3.4.1 rigorous collection development and collection evaluation policies should also be pursued by the participating libraries for their journal collections.

Union list of periodicals on microeconomics, macroeconomics and quantitative methods

As an outcome of the assessment of the core/relevant journals subscribed to by the participating libraries, a *Union List of Periodicals on Microeconomics, Macroeconomics and Quantitative Methods* has been compiled (see Appendix V). The list is intended as a nucleus of a more comprehensive union list that will not only reflect the core/relevant journals but will include all journals subscribed to in microeconomics, macroeconomics and quantitative methods in the first instance. The possibility of expanding the union list to include all journals subscribed to in economics could be considered later. Also to be considered later is the possibility of compiling a union catalogue of books in economics held in the participating libraries. Of such crucial importance are these tools (often referred to as "navigational devices" or "locational tools") to resource sharing that the urgency of their compilation and upkeep cannot be overemphasized. The recommendation, therefore, is that the AERC Library (the coordinating centre) should be responsible for the

compilation and upkeep of a comprehensive union list of periodicals using the present *Union List* as a point of departure. The centre should also consider the possibility of expanding the Union List to include all journals on economics and also of compiling a union catalogue of economics books held in all participating libraries .

Services provided

As was seen in the previous chapter, most of the libraries carry out such traditional library services as abstracting and indexing, current awareness services, compilation of bibliographies, literature searches, etc. Additionally, they have systems for identifying the information needs of their users and they engage in publicity/public relations activities to bring the document/information resources to the attention of the users. But, as the participating libraries indicated, most of these activities are not specific to economics but are of a general nature. While these general services serve a useful purpose, very often the pervasiveness of their nature limits their usefulness and users generally find the specific services more beneficial. The participating libraries are therefore encouraged to provide subject-specific services in addition to the general services and to provide such specific services for economics .

Equipment

Communication equipment

This is obviously an area that needs careful consideration in any network scheme since the success of the network largely depends on the efficiency of the communication system within the network. The survey has shown that there is a substantial availability of telecommunication facilities, especially the “traditional” ones (i.e., telephones, fax and telex), even though these are deemed inadequate (Table 8). Moreover, with the unreliable nature of these facilities in most African countries, they cannot be relied on entirely as effective communication media and more dependable means are needed. Electronic mail, which has proved to be more reliable, is reasonably available in most of the participating libraries (as Table 7 shows) and could be enhanced to ensure successful communication within the network. However, the acquisition of these facilities is normally not within the purview of the libraries but that of the university authorities. The libraries thus need to prevail upon the authorities to acquire as speedily as possible the necessary telecommunication equipment and facilities to enable them not only to improve their communication systems generally, but also specifically to participate effectively in the resource sharing scheme .

Computers, word processors and other IT hardware.

Like telecommunication equipment/facilities, the use of computers, word processors and other hardware as library resources cannot be easily determined or apportioned by subject. It would therefore be difficult, if not impossible, to assess the adequacy of these resources for use in the processing and dissemination of information on economics. These resources are, however, crucial to the efficient operation of a network or resource sharing venture. Computer-based systems provide both the information professional and the information user with more options, enhanced flexibility and high speed operation in the organization and use of information. Simply put, without adequate access to computer-based facilities, a network has very little chance of success. That is why the general expression of inadequate computer, word processing and other information technology facilities among the participating libraries must be seen as a serious, urgent issue (Table 10). This general inadequacy is bound to affect the services provided in economics and, consequently, the effective participation of the libraries in the network.

With the dire financial conditions in which most of the libraries find themselves, the intervention can only come from outside. It is therefore recommended that AERC consider the possibility of financially assisting the libraries to acquire basic information technology in order to assure unhindered access to the facilities required for the effective working of the network.

Communication within the network

It seems appropriate at this juncture to discuss communication within the network. Communication within the network will, essentially, be of a bibliographic kind, that is, communication about information or document resources within the network. The purposes range from information on the availability of a particular article or document for reference or interlibrary lending, to the compilation of bibliographies, literature searches, etc. There are various ways in which this can be done, ranging from the very basic to the most sophisticated. The various ways are discussed in turn.

The most basic way of providing access to information of this kind within the network would be through the medium of computerproduced union lists and catalogues of the available information on document resources in all the participating libraries. Print ours, e-mail or disc copies of these lists and catalogues (produced by the coordinating centre) would then be sent by the coordinating centre to all the participating libraries. Requests for items needed would be sent directly from the requesting library to the lending library. The section of formats would cater for the communication facilities currently available in the participating libraries, and make this the most immediate and most affordable means of communication of this kind within the network.

Another possibility would be for the participating libraries to have direct on-line access to the union lists and catalogues, which would be centrally kept and maintained by the coordinating centre, or even have direct access to each participating library. That would, in other words, be a full electronic network, one requiring a level of technological

and financial investment that would not likely reap benefits commensurate with the investment. Such a network, if created, would essentially be a one-subject bibliographic network the subject, of course, being economics. There are many multi-purpose, multisubject networks from which a wide range of information including economics can be obtained. There is, for instance, PADISNET, which aims “to contribute to the advancement of data communications technology in Africa, to improve the flow of information for socioeconomic development, and to enhance the timely utilisation of existing information systems” (Adam and Hafkin, 1992:25). Another example of such networks is SABINET (Southern African Bibliographic Network), to which some of the libraries participating in the Collaborative MA Programme already have access. The considered opinion, therefore, is that creating a one-subject network for some 18 university libraries across Africa (most of whom have the very minimum of information and document resources) would not be an economically viable proposition. In fact, it would be nothing less than a re-invention of the wheel— and a very poor wheel at that. A much cheaper and reasonably effective alternative would be the use of e-mail facilities, which almost all the participating libraries possess or have access to, for obtaining information about document resources in the network and also for communication purposes.

The use of the Internet is yet another possibility. Some of the countries of the participating libraries, for example, Botswana, Ethiopia, Malawi, Mozambique and Namibia already have full Internet connectivity or dial-up access. It is envisaged that access to the Internet (in either of the modes) will become a reality for the rest of the countries within the foreseeable future.

Internet would not only facilitate communication and access to information within the network but it would also avail the network access to a virtually unlimited world-wide source of information. In the meantime, however, AERC should seriously consider subscribing to the Internet to assist the participating libraries to gain immediate access to this world-wide information source. The AERC Library (as the coordinating centre) would receive requests for specific information needs (literature searches, bibliographies, books, periodical articles, etc.) from the participating libraries, search the Internet for the information and relay the information back to the requesting library. This would be a very useful coordinating role for the centre.

Reprographic equipment

Reprographic equipment shares characteristics with IT equipment in the sense that its use cannot be determined by subject but it is equally important for the successful operation of a resource sharing network, in this instance, for sending surrogate documents from one participating library to the other. Again as in the case of IT equipment, there is (as may be seen from Table 12) a fairly serious general shortage of reprographic equipment of various kinds in the participating libraries.

The same condition that necessitated the recommendation of the intervention of AERC in the acquisition of IT equipment applies to the acquisition of reprographic equipment. AERC would, therefore, again be requested to consider the possibility of financially

assisting the libraries to acquire the basic reprographic equipment needed for their effective participation in the network.

Library cooperation

As the survey has shown, not much cooperation now exists among the participating libraries. The primary cooperative activities are inter-library lending and publication exchanges, but even these are not properly carried out since they are organized on an ad hoc basis. The main reason for this is the absence of such basic requisites for cooperation as union list of periodicals and books that show the holdings of the participating libraries and are therefore likely to encourage organized borrowing and lending arrangements. Knowledge of what is commonly available within the participating libraries is essential for this purpose. A similar lack of knowledge about what documents are available for exchange purposes or even as donations, compounded by the absence of a coordinating centre, has undoubtedly discouraged activities in these areas.

The designation of the AERC Library as the coordinating centre for the network will hopefully resolve the question of the lack of coordination among the participating libraries. Information on what is available in the form of core/relevant periodical holdings by the participating libraries in microeconomics, macroeconomics and quantitative methods is now available as a result of this study (Appendix V), as is information on special collections on economics and CD-ROMs on economics and related subjects (appendixes III and IV). It would be the responsibility of the coordinating centre to make this information (including updates) known to all the participating libraries to encourage the use of the resources through purposeful borrowing and lending.

What should also be encouraged within the network is the culture of document donations and gifts. Properly planned, document donations, gifts and exchanges can contribute enormously to the enrichment of the resources of a network. The fundamental principle underlying the concept of donations/gifts and exchanges, aside of any connotations of good will and charity (particularly in the case of donations/gifts), is the fact that no library can ever hope to be self-sufficient in the acquisition of its document resources. Documentations of associations, societies, etc., may be difficult or impossible to obtain through the normal commercial channels, and back issues of periodicals may prove equally difficult to acquire. Within a network, then, gifts and exchanges can be organized to consolidate resources. Members could, for instance, exchange periodicals so that all issues of one title would be in one place (instead of being spread out, incomplete, in individual libraries within the network); gaps in periodical holdings can be filled with unwanted duplicates and discards from another library. Gifts and exchanges have many permutations of use that may be explored for the total benefit of the network. Given the erratic nature of the periodical holdings of some of the participating libraries (as the *Union List of Periodicals* has shown), this is an activity to which some serious thought could be given.

Again, the responsibility for the coordination of gift and exchange programmes within the network would fall on the AERC Library as the coordinating centre. Information on

available duplicates, gifts, etc., would be solicited and circulated among all the participating libraries. Libraries finding any of the documents on offer would then contact the donor library accordingly.

Document delivery

Document delivery, or making a requested document available to the requester, is an important factor to be considered in a resource sharing scheme. Identifying documents within the network (through union lists and union catalogues) or even in external bibliographic sources is one thing; making the documents physically available to the requester is another. The efficiency of a network, therefore, also depends on how quickly documents (requested through inter-library loan arrangement, for instance) as well as messages may be transmitted within the network. Modern technology has made it possible for documents and messages to be transmitted almost instantly, for example by fax and e-mail. These facilities are reasonably available within the network and should facilitate document delivery and the transmission of information appropriate to these methods. A substantial amount of requested material (like books and other heavy documents) may, however, have to be sent through the various national postal services, which are mostly not known for their efficiency. For the efficient and fast delivery of documents that may be urgently needed, the participating libraries could consider using commercially operated courier services, which provide competitive services in most African countries. In such instances, AERC could consider subsidizing the courier costs.

In addition to documents that may be identified and requested within the network, a larger number of documents could very well be identified and requested from sources outside the network. These sources could be any of the various commercially produced indexing and abstracting services, bibliographies, references in books and periodicals, searches conducted on the Internet, and others. While these sources are extremely useful, their usefulness tends to be limited for the resort that they only provide information on the documents and not the documents themselves. The process would have to be taken further to ensure the physical availability of documents that may be required by any of the participating libraries through any of these sources. That responsibility would devolve on the AERC Library in its capacity as the coordinating centre. Requests for such items would be communicated to the AERC Library, which would acquire them (as photocopies or other surrogates) on behalf of the requesting library, using any of the many international centres (such as the British Library Document Supply Centre) from where these documents may be obtained. Sufficient financial provision should, therefore, be made by AERC to enable the coordinating centre to carry out this important function.

Staffing

The importance of qualified and motivated staff to the successful implementation of a resource sharing scheme has already been stressed. This is an issue that cannot be over-emphasized. It is therefore gratifying to note in the questionnaire returns that all the

participating libraries seem to be well staffed in terms of the Collaborative Programme, with some having subject librarians specifically for economics or the social sciences (with responsibility for economics). These are obviously libraries that are (by policy) organized on subject basis. Even the libraries that are not similarly organized have librarians who are responsible for the collection and development of information on economics. In all cases there are librarians who have been designated as “contact persons” for the purpose of the programme. This is a good policy, which must be encouraged and maintained, especially in keeping current information on who the contact persons are so as to facilitate undisturbed channels of communication among the participating libraries. One of the observations made by the Consultant on his study visits to some of the libraries was that because of staff movements (due to transfers, resignations, etc.) some of the persons cited in the survey questionnaires as the contact persons were no longer in those positions. In order to keep information on contact persons current, it is recommended that any changes be communicated without delay to the AERC Library, the coordinating centre, which would in turn inform all participating members accordingly.

Further, some system is required for continually keeping library staff informed of developments in economics if they are to be able to provide relevant services. There are several ways by which up-to-date information may be acquired, including attendance at meetings (especially faculty board meetings where projects, programmes, etc., are discussed), seminars, workshops and other activities organized by the departments of economics. Some of the departments of economics do seem to be involving their economics librarians in these events, but only informally and on an ad hoc basis. As one respondent stated, such meetings are attended “when there is information on them”. This seems to be the prevailing trend, which means that there is a general lack of communication (as far as these meetings are concerned) between the departments of economics and the university libraries, principally the economics librarians. The economics librarians may not be invited to these meetings because the departments may not be aware of (or may not sufficiently appreciate) the importance of such meetings to the professional development of the economics librarians and consequently to the development of the document and information resources on economics on which the efficacy of the resource sharing scheme ultimately depends. In view of the foregoing, it is strongly recommended that the departments of economics take steps to institute formal channels of communication between them and the economics librarians, to ensure that information on meetings, seminars, workshops, etc., considered relevant to the development of the resources on economics is regularly made available to the librarians, and to formally invite the librarians to participate in such activities.

A very useful, but hardly used, system for keeping library staff current is staff visit/exchange programmes. As noted in the preceding chapter, staff visit and exchange programmes generally provide great insight into the operations of other libraries, engendering understanding and rapport among the participating institutions, promoting the acquisition of new skills, etc. All these are important for the well-being of a network, but unfortunately, for reasons that range from “funding problems” to “housing difficulties” and more, African libraries, university libraries included, do not normally engage in staff visit/exchange programmes. Whereas the funding and logistical problems are real, they

are not insurmountable and with some planning and financial support it should be possible for staff visit/exchange programmes to be organized. It is in the light of the undoubted importance and benefit to the proposed network that the recommendation is hereby made that AERC seriously look into the possibility of establishing a staff visit/exchange programme for the economics librarians in the participating institutions.

Department/faculty libraries

The issue of departmental/faculty libraries was discussed in some detail in Chapter 2 and the conclusion was drawn that the working relationships that were supposed to exist between them (where such libraries have been established) and the main university libraries were mostly nominal. This has led to the situation where the departmental libraries are woefully neglected and disorganized and can hardly be called “libraries”. The exception to this rather pathetic picture is where (as in a few instances) the departmental/faculty libraries are directly under the administration and management of the main university libraries.

The situation calls for urgent redress and the recommendation here would be the establishment of real working relationships between the economics departments and the main university libraries. This could be achieved through the establishment of a forum for the discussion of needs, services, issues and problems of common interest and ways to resolve them. The forum could take the form of scheduled meetings (at frequencies to be determined by both parties) between the economics department, represented by the head of department (or an appointed agent) and the main library, represented by the economics librarian. The forum could be expanded if desired into a small “library committee”. Regardless of the shape such a forum might take, it is crucial to establish a communication mechanism to bridge the gap between the departments and the main libraries and thereby eliminate the unhealthy isolation in which some of these players seem to be operating.

The issue of assistance in the organization and running of the “autonomous” departmental libraries is one of the issues that should engage the immediate attention of the forum. These libraries are neglected and disorganized; one or two have trained librarians, and the rest are, at best, under the care of clerical assistants. Some of the main libraries have professed assistance to the departmental libraries but in reality very little help that is given. The reason given by the main libraries is that they themselves are under severe personnel constraints and therefore can ill afford to spare their staff for that purpose. True as that may be, an equally plausible reason is the absence of a formally structured programme of assistance (which may take various forms) and a commitment to its implementation. The suggested forum would need to look at possible areas of assistance and jointly work out the modalities for their implementation. Establishing this channel of communication would have the added advantage of making the main libraries constantly aware of the Collaborative MA Programme and its activities, thereby enabling them to prepare adequately. The departments should also consider the possibility of employing trained librarians (at least certificate or diploma holders) for their libraries.

Evaluation of the network

Evaluation is an important aspect of network management and should therefore feature prominently in the management of the proposed network. After, and even during ongoing operations, evaluation can improve system operation, and at a time when the network is considering expanding or modifying its activities or planning new ones, evaluation is a necessary procedural step. Thus, as the network operates, it requires constant evaluation in terms of its original purposes and its evolving goals. Evaluation would be concerned with such issues as the relevance of the services offered, accessibility of services to participating libraries, cost effectiveness, the financial stability of the network, etc. (Patrick, 1992; Besemer, 1987). Information on these points would help in assessing the extent to which the network is achieving stated objectives, and what should be done to improve performance or to chart the course of the network towards the desired goals. It is therefore recommended that all projects implemented by the network be subject to periodic evaluation through workshops, seminars, reports, etc., and that at least once every two years a general workshop be held for economics librarians from participating institutions to review the activities of the network as a whole.

Conclusion

The recommendations made here are intended to provide an infrastructural base on which the proposed network will be built and developed. In making the recommendations, no distinction was made between Category A and Category B institutions for the simple reason that the building of the network, and its development and use will have to be a collaborative effort by all the institutions, Category A and Category B alike. The recommendations are, therefore, general in nature. However, where specific individual requirements or needs have been expressed these have been respected and have been incorporated into the recommendations as far as possible.

In conclusion, it must be stated that while good infrastructure is a prerequisite for successful networks, infrastructure alone will not necessarily result in good network). Attention is therefore drawn once again to the essential conditions for a successful network that were discussed at the beginning of this report. The conditions need to be considered critically, bearing in mind, especially, that without an appreciation of the need for a network and without an acceptance of responsibility by all concerned, the network will have little chance of success however infrastructurally well-endowed it may be.

IV. Financial implications of the network

Part of the terms of reference of this study was to consider financial implications of the proposed network for both individual universities and external funding. This chapter is devoted to that aspect of the study.

A factor central to the successful operation of a network is sound financial planning and support. This obviously important consideration is often not sufficiently appreciated by network operators and must account for the poor performance or total collapse of many networks. It is a lack of appreciation that is founded on the generally held impression that networks are purposely money-saving and that, consequently, there should be minimal financial involvement in their operation. This is a wrong assumption. There ought to be a clear understanding among prospective network participants that the ultimate purpose of networking does not necessarily reside in cost reduction but in a user service that is more efficient and more extensive than it would be possible with the resources of any individual institution. Plans should, therefore, be made for the provision of adequate financial support for the operation of the network.

In addition to arrangements for regular financial support for the network, there is very often the need for initial capitalization or “seed money” to establish the network. The purpose for which the seed money is used will, obviously, differ from one situation to the other depending on the objectives, needs and activities of the network, but it should be adequate to see the network through its stabilizing period.

Funding the proposed network

The source of funding for the network would, in the main, have to be external, considering the severe financial strain under which most of the participating libraries are currently operating. Imposing additional financial responsibilities would be too much of a burden for them to bear and would mark a certain inauspicious beginning for the network. The participating libraries would be expected to make the normal financial provision for the development of their resources in economics but bearing in mind their membership in the network and their obligation to its aims and objectives. They would also be expected to adopt rigorous policies that would aid the expeditious collection and development of the resources as far as their financial circumstances would permit. These policies should be made to cover relevant local document and information resources (such as government publications, university theses and dissertations, report literature, etc.), making information on them and the other resources known to all the participating members through the

AREC Library (the coordinating centre) as already recommended, and making them (or their surrogates) available for use by members should any of them be requested.

The proposed network will need seed money to be used principally for acquiring equipment, recommended textbooks and periodical articles, and other basic requirements. In addition to the seed money, there will also be the need for money to cater for some recurrent expenditures. Recommendations have been made for these areas of capital and recurrent expenditures; the estimated costs are given below.

Capital expenditure - Recommended textbooks

It was recommended in Chapter 3 that AERC consider assisting participating libraries financially in acquiring the recommended textbooks, periodical articles, etc. The costs were worked out on the basis of recommended items not available in the libraries (excluding items reported out of print) and presented in Tables 1-5. It should be noted that the lists of recommended items used for microeconomics, macroeconomics and quantitative methods were the first to be issued by the AERC Academic Board. Changes and revisions that may have been made since then would have to be taken into account. Table 13 shows the estimated cost.

Table 13: Estimated cost of recommended textbooks

University	Total No. of items	Estimated cost (in US\$)*	Remarks
Addis Ababa	60	4,606	
Botswana	-	-	Has all items in stock except those reported out of print
Cape Coast	67	5,144	
Dar es Salaam	54	4,146	
Eduardo Mondlane	-	-	Did not indicate requirements
Ghana	60	4,606	
Kenyatta	70	5,374	
Lesotho	51	3,915	
Makerere	71	5,451	
Malawi	54	4,146	
Mauritius	55	4,222	
Moi	92	7,063	
Nairobi	35	2,687	
Namibia	77	5,911	
Sierra Leone	71	5,451	
Swaziland	64	4,913	
Zambia	-	-	Did not indicate requirements
Zimbabwe	48	3,685	
Total cost: US\$71,320			

Source: Average prices of British academic books, January to June 1995.

Loughborough University, Library and Information Statistics Unit (Report No. 17).

Note: Calculation of cost was based on the average price of £49.13 for economics books (and converted into US\$ using early October, 1996 indication rate of US\$1.5626 = £1).

Similarly, the estimated cost for the acquisition of recommended periodical and serial articles for the combined areas of microeconomics and macroeconomics (see tables 4 and 5) are shown in Table 14.

Table 14: Estimated cost of recommended periodical and serial articles

University	Total no. of items	Estimated cost (in US\$)*	Remarks
Addis Ababa	29	145	
Botswana	18	90	
Cape Coast	53	265	
Dar es Salaam	35	175	
Eduardo Mondlane	47	235	
Ghana	24	120	
Kenyatta	50	250	
Lesotho	48	240	
Makerere	38	190	
Malawi	-	-	Did not indicate requirements
Mauritius	29	145	
Moi	57	285	
Nairobi	10	50	
Namibia	56	280	
Sierra Leone	33	165	
Swaziland	45	225	
Zambia	-	-	Did not indicate requirements
Zimbabwe	27	135	
Total cost: US\$2,995			

Note: *Calculation of cost was based on the estimated average of 25 pages per article and a photocopying charge of US\$0.20 per page.

Capital expenditure - Computers, word processors and other IT hardware

The acquisition of computers, word processors, etc., by AERC for the participating libraries was recommended and the libraries have expressed their individual requirements (Table 10). Specifically, the recommendation was for the acquisition of the basic equipment required for the libraries' effective participation in the network. One each of the required items would be considered basic for the purpose of the network. It is recommended that one PC (with word processing facilities and printers) and one CD-ROM drive each be acquired for each library that expressed the need for such equipment. Table 15 gives the estimated cost.

Table 15: Estimated cost of computers and CD-ROM drives

University	Equipment PCs	CD-ROM drive	Estimated cost (in US\$)*	Remarks
Addis Ababa	1	1	1,794	
Botswana	-	-	-	No expressed needs. Equipment adequate
Cape Coast	-	1	324	
Dar es Salaam	1	-	1,470	
Eduardo Mondlane	1	1	1,794	
Ghana	1	1	1,794	
Kenyatta	1	1	1,794	
Lesotho	1	-	1,470	
Makerere	1	1	1,794	
Malawi	1	1	1,794	
Mauritius	-	-	-	No expressed needs. Equipment adequate
Moi	-	-	-	No expressed needs. Equipment adequate
Nairobi	1	-	1,470	
Namibia	-	-	-	No expressed needs. Equipment adequate
Sierra Leone	1	1	1,794	
Swaziland	1	1	1,794	
Zambia	-	1	324	
Zimbabwe	1	1	1,470	

Note: *Calculation of cost was based on IBM (Botswana) price estimate for PCs in Africa (See Appendix IV).

Capital expenditure - reprographic equipment

The acquisition of basic reprographic equipment was recommended for the purposes of the network, with requirements for various types of reprographic equipment shown in Table 12. As in the recommendation for the purchase of computer equipment, one each of equipment requested and considered relevant is recommended for each requesting library. Table 16 gives details of estimated cost.

Capital expenditure - AERC library

The recommendation (Chapter 3.3) is that the AERC Library be designated as the coordinating centre to carry out some of the administrative and professional work that would be necessary in the operation of the network. That would need an increase in staff by at least one professional librarian/information scientist to be appointed by AERC and for whom provision should be made initially under capital expenditure. Should additional equipment like PCs, photocopiers, etc., be required by the AERC Library, these should also be acquired as part of the capital expenditure.

Table 16: Estimated cost of reprographic equipment

University	Equipment				Estimated cost (in US\$)*	Remarks
	Photo-copier	Microfilm camera	Microfilm reader/printer	Microfiche reader/printer		
Addis Ababa	1	1	1		27,425	
Botswana	-	-	-	1	11,000	
Cape Coast	1	-	1	-	19,575	
Dar es Salaam	1	-	-	-		
Eduardo Mondlane	1	-	-	-	8,575	
Ghana	1	-	1	-	19,575	
Kenyatta	1	-	-	-	8,575	
Lesotho	1	-	-	-	8,575	
Makerere	1	-	-	1	19,575	
Malawi	1	-	-	-	8,575	
Mauritius	-	-	-	-	-	No needs expressed. Equipment adequate
Moi	-	-	-	-	-	No needs expressed. Equipment adequate
Nairobi	1	-	-	-	8,575	
Namibia	-	-	-	-	-	No needs expressed. Equipment adequate
Sierra Leone	-	-	1	1	19,575	
Swaziland	1	-	1	1	19,575	
Zambia	1	-	-	-	8,575	
Zimbabwe	1	-	-	-	8,575	
Total cost:					US204,900	

Note: * Calculation of cost was based on Xerotech (Xerox, Botswana) price list (see Appendix VII).

Recurrent expenditure - photocopying costs

The AERC Library, as the coordinating centre, has been given the responsibility of acquiring documents (particularly photocopies of articles) that may be requested from outside the network by participating libraries. Although it would be difficult to forecast the precise number of requests the AERC Library would receive for such articles, given the general paucity of document and information resources within the region, it would be quite safe to assume that the requests could be quite substantial. An average of only ten requests per library per month would yield a total of 180 requests per month. Again, working on the earlier estimate of a photocopying charge of US\$0.20 per page, and an average of 25 pages per article (Table 14), that would mean a monthly cost of US\$900, culminating in an estimated yearly cost of US\$10,800.

Recurrent expenditure - others

Recommendations have been made that AERC subscribe to the Internet on behalf of the participating libraries and also that AERC consider subsidizing the costs incurred by participating libraries in sending urgently needed documents by commercial courier services. It would be difficult to estimate the cost of AERC's Internet subscription since subscription costs to the Internet are localized. Should AERC decide to subscribe to the Internet, the cost implication would have to be borne in mind in the financial planning for the network.

Another difficult area for which to estimate is the possible use of the suggested commercially operated courier services since the frequency of use of the services as well as the costs (which will also be localized) cannot be easily determined. However, an amount of US\$5,000 is provisionally estimated for that contingency.

Conclusion

An attempt was made in this chapter to work out the financial implications of the proposed network, a summary of which is given in Table 17. Like all estimates, the final figure of US\$347,484 is an approximation only but should serve as a good indication of the possible financial implications of the network.

Table 17: Summary of expenditure

Item	Estimated cost (in US\$)	Remarks
Capital expenditure:		
Recommended textbooks	71,312	
Recommended periodical and serial articles	2,995	
Computers, etc.	20,880	
Reprographic equipment	204,900	
AERC library (staff, equipment, etc.)	-	AERC to make provision
Recurrent expenditure:		
Photocopying (periodical articles, etc.)	10,800	
Others:		
Courier services	5,000	AERC to make provision
Internet subscription	-	
Total	:	315,895
Contingency (10%)	:	31,589
Grand total	:	<u>347,484</u>

V. Summary of recommendations

1. A coordinating committee, under the aegis of AERC and possibly as a subcommittee of the Academic Board, should be established and mandated to formulate policies for the network, apportion responsibilities (fiscal, administrative, etc.) and generally oversee the implementation of the network. (Section 3.1)
2. The AERC Library should be designated as the coordinating centre, to be responsible for some of the administrative and professional duties that would need to be carried out in the implementation of the programmes of the network and to be given the necessary resources in terms of staff, equipment, funds, etc., to enable it to carry out the duties effectively. (Section 3.2)
3. The AERC Library, as the coordinating centre, should be responsible for updating the *Directory of Participating Libraries* (Appendix II) to ensure its viability as a tool for effective communication among the participating libraries. (Section 3.3)
4. Information about reading lists, prescribed textbooks, changes in course structure and orientation should be communicated to the university libraries by the departments of economics, and in good time, to give the libraries the opportunity to prepare adequately for the programme. (Section 3.4.1)
5. In view of the widespread unavailability of the recommended textbooks, periodical articles, etc., in the participating libraries, as well as the importance of the recommended items to the MA Programme, and in consideration of the precarious financial circumstances of most of the libraries that may make it difficult for them to afford the items, AERC should consider assisting the libraries financially to acquire those items. (Section 3.4.1)
6. Participating libraries should follow rigorous collection development and collection evaluation policies in economics to prevent (and redress) any apparent imbalances in their collections. (Section 3.4.2)
7. Information on existing special collections and CD-ROMs in the participating libraries should be communicated to all the participating libraries by the coordinating centre (i.e., the AERC Library), which should also have the responsibility of keeping the information on the special collections and CD-ROMs up to date. (Section 3.4.2)

8. Using the present Union List of Periodicals on *Microeconomics, Macroeconomics and Quantitative Methods* (Appendix V) as a point of departure, the AERC Library (as the coordinating centre) should assume the responsibility of compiling, and keeping up to date, a comprehensive union list to include all journals subscribed to by the participating libraries in microeconomics, macroeconomics and quantitative methods. The Library should also consider the possibility of expanding the union list to include all journals subscribed to in economics as well as compiling a union catalogue of economics books held in all the participating libraries. (Section 3.4.4)
9. While services (such as abstracting and indexing, current awareness, etc.) provided by the participating libraries are useful, their general nature limits their usefulness. The participating libraries should therefore be encouraged to provide the services on a subject-related basis (in this case economics) for more beneficial effect. (Section 3.4.5)
10. The participating libraries should prevail upon their parent university authorities to ensure the speedy installation of the requisite telecommunication equipment and facilities to enable the libraries not only to improve their communication systems generally but also specifically to participate effectively in the resource sharing scheme. (Section 3.5.1)
11. In view of the general inadequacy of computers, word processors and other Information technology (it) facilities, and in view, also, of the importance of such Technology to the successful operation of the network, AERC should consider the possibility of financially assisting the libraries to acquire the basic IT equipment needed to enable the libraries to participate effectively in the network. (Section 3.5.2)
- 12..The use of computer-produced union lists and catalogues offers an immediate and affordable means for the communication of bibliographic information within the network and should therefore be pursued as an initial step in the communication process within the network with the coordinating centre playing the role of the principal facilitator. (Section 3.5.3)
13. The establishment of a full electronic network would not be recommended, at any rate for now, since the level of technological and financial investment required to set up what would, essentially, be a one-subject bibliographic network would be very hard to justify in terms of the expected returns on the investment. Instead, the use of e-mail facilities, which most of the libraries possess, or have access to, should be encouraged as a means of obtaining information about document resources within the network and also for other communication purposes. (Section 3.5.3)
14. AERC should seriously consider subscribing to the Internet to assist participating libraries gain access to the virtually unlimited world-wide source of information available through that medium. (Section 3.5.3)

15. As in Recommendation 11, and for similar reasons, AERC should consider the possibility of financially assisting the libraries to acquire the basic reprographic equipment needed for the effective participation of the libraries in the resource sharing scheme. (Section 3.5.4)
16. The AERC Library (as the coordinating centre) should circulate information on existing document and information resources within the network to all participating libraries to encourage cooperation (inter-library lending, publication exchanges, document donations, etc.) within the network. (Section 3.6)
17. All participating libraries should ensure that information and documents requested by participating members are promptly dispatched, using the most appropriate and efficient means of communication or transmission, including where necessary the use of commercially operated courier services, with AERC subsidizing costs. (Section 3.7)
18. The AERC Library, as the coordinating centre, should acquire, on behalf of participating libraries, documents (particularly photocopies of articles) that may not be available within the network or documents that may be identified in external bibliographic sources. (Section 3.7.)
19. The present high standard of professional expertise available for the collection and development of document and information resources in economics is commendable and must be maintained, and so also must the system of appointing “contact persons” for the programme be maintained. To keep information on the contact persons current, participating libraries should communicate any changes immediately to the AERC Library, the coordinating centre, which would, in turn, inform all members of the network accordingly. (Chapter 3.8)
20. There seems to be a prevailing lack of communication between the departments of economics and the economics librarians about meetings, seminars, workshops, etc., organized by the departments. In view of the importance of such event to the professional development of the economics librarians and, ultimately, to the development of the document and information resources on economics, the departments of economics should involve the economics librarians regularly and formally in meetings, seminars, workshops, etc., considered relevant to the development of the resources on economics. (Section 3.8)
21. AERC should seriously look into the possibility of establishing a staff visit/exchange programme for the economics librarians in the participating libraries to enhance rapport among the economics librarians and, consequently, the successful operation of the proposed network. (Section 3.8)
22. As a matter of urgency, channels of communication should be established between the departments of economics and the main university libraries through scheduled

meetings to ensure better working relationships between them and also, where appropriate, to plan programmes for the development of the departmental/faculty libraries. The departments/faculties should also consider the possibility of employing trained librarians for their libraries. (Section 3.9). (See also Recommendation 20).

- 23 All projects implemented by the network should be subjected to periodic evaluation through workshops, seminars, reports, etc., and at least once every two years a general workshop should be held for all the economics librarians from participating institutions to review the activities of the network as a whole. (Section 3.10)

Notes

1. The participating universities are Addis Ababa, Botswana, Cape Coast, Dar es Salaam, Eduardo Mondlane, Ghana, Kenyatta, Lesotho, Makerere, Malawi, Mauritius, Moi, Nairobi, Namibia, Sierra Leone, Swaziland, Zambia and Zimbabwe.

References

Belay, K., ed. 1994. *Workshop for Economics Librarians Proceedings of the Workshop held on 26–30 July, 1993 University of Botswana, Gaborone*. University of Botswana Library.

Lyakurwa, W.M. 1994. “The structure of the Collaborative Master’s Programme in Economic and the role of the library and librarians in implementing the programme”. In *Workshop for Economic Librarians*, Proceedings of the workshop held on 26–30 July 1993 University of Botswana, Gaborone. Edited by Kesete Belay University of Botswana Library, Gaborone.

The World of Learning. 1993. London: Europa Publications.

Appendix I

Questionnaire on existing resources in economics

I am carrying out a study into the possibility of a network for resource sharing among anglophone university libraries (except Nigeria) participating in the Collaborative MA Programme in Economics. The study is being conducted on behalf of the African Economic Research Consortium (AERC), sponsors of the programme.

In July, 1993, AERC organised a workshop in Gaborone, Botswana, for economic librarians from university libraries participating in the programme. The main purpose of the workshop was to find ways of providing access to a wide range of reading materials in support of the programme, especially in microeconomics, macroeconomics and quantitative methods which are the programme's areas of interest. One of the resolutions adopted, in this respect, was the establishment of a mechanism that would ensure cooperative access to the resources of the participating libraries. This study is the result of that resolution.

A prerequisite of a study of this nature is, as you will appreciate, the determination of the existing library and information resources in those subject areas in the participating libraries. "Resources", in the context of the study, has been given the broad interpretation of the sum total of all the elements (i.e. the materials, functions, services, etc.) which constitute a library. In order to establish these resources, I should be very grateful if you would complete the enclosed questionnaire which has been formulated with the purpose of collecting as much information on the subject as possible so as to permit an objective assessment of the situation.

In seeking your assistance, I appreciate the considerable effort that may be involved in providing some of the answers. I also appreciate the very important part that your contribution will play in the estimation of the true extent of the resources and, in deed, in the determination of the conclusions of the study. For both effort and contribution, I

remain immensely grateful. I would like to assure you that any information that may be given in confidence will be treated strictly as such.

Kindly return the completed questionnaire to me by 8 May, 1995.

Thank you for your co-operation.

Yours sincerely,

Dr. B.Y. Boadi **Department of Library and Information Studies.**

Encl.

QUESTIONNAIRE ON A FEASIBILITY STUDY FOR A RESOURCE SHARING NETWORK AMONG ANGLOPHONE UNIVERSITY LIBRARIES (EXCEPT NIGERIA) PARTICIPATING IN AERC'S COLLABORATIVE MA PROGRAMME IN ECONOMICS

Where alternative answers are given, kindly tick the correct answer(s)

Where space provided for answers is inadequate, please use additional sheets of paper, indicating the numbers of the questions.

GENERAL INFORMATION

1. Name of University: _____

2. Category of University: A _____

B _____

3. Name of Librarian: _____

4. Full mailing address of University: . _____

Telephone _____ Telex _____ Fax _____ E-mail _____

DOCUMENT/INFORMATION RESOURCES

Recommended Textbooks

5. The Academic Board of AERC has produced reading lists (textbooks, reference books, etc.) for the three areas of interest to the Collaborative MA Programme, which are: microeconomics, macroeconomics and quantitative methods (comprising mathematics, statistics and econometrics).

These lists have been attached to this questionnaire as: **Appendix A: Microeconomics, Appendix B: Macroeconomics, and Appendix C: Quantitative Methods.**

Kindly check the lists against your stock and, for each subject area:

- (i) Tick those that you have in stock. (Please indicate editions of the books if they are different from **those on the** lists).
- (ii) For those not in stock, please write o/o against **items on order**, and n/o against items **not ordered**, indicating when items on order were ordered, and why items not in stock have not been ordered.

(Note: Kindly provide all information on the enclosed lists).

6. Relative to your collections in the three subject areas (i.e. microeconomics, macroeconomics and quantitative methods), **kindly rank** the strength of the collections (in the areas) from the strongest (ranked 1) to the weakest ranked (3) by circling the right ranking numbers below (e.g. if quantitative methods is your strongest collection, circle “1” against quantitative methods, etc.):

Microeconomics _____ 1 _____ 2 _____ 3

Macroeconomic _____ 1 _____ 2 _____ 3

Quantitative methods _____ 1 _____ 2 _____ 3

Recommended Periodical and Serial Articles

7. In addition to the recommended textbooks, lists of **recommended periodical and serial articles** have also been prepared by **the** Academic Board for microeconomics and macroeconomics (but not for quantitative methods).

The lists of the recommended periodical and serial articles have also been attached to this questionnaire as: **Appendix D** for both Microeconomics and Macroeconomics.

Kindly check the lists against your periodical and serial holdings and, again for each subject area:

- (i) Tick the articles that are available in your library.
- (ii) For articles not available, write o/o against **those that have been ordered**, indicating when they were ordered as well as any difficulties you may be experiencing in acquiring them.
- (iii) For articles not on order, kindly give the reason(s) why they have not been ordered.

(Note: Kindly provide all information on the enclosed lists)

Core/Relevant Journals

8. For each of the subject areas (of microeconomics, macroeconomics and quantitative methods), please list the core/relevant journals you subscribe to on the subject, indicating your holdings:

(i) Microeconomics:

(ii) Macroeconomics:

(i) Quantitative Methods:

Special Collections

9. Do you have any special collections in economics or are there any areas in which you particularly specialise either nationally, regionally or internationally (e.g. government documents and reports, theses **and** dissertations, documents of regional or international organisations, like ECOWAS, SADC, the World Bank, IMF, UN, etc.)?

If you do, kindly give as much information about such collections as you can, especially their relevance to the three areas of microeconomics, macroeconomics and quantitative methods:

(i) **National Collections/Documents:**

(ii) **Regional Collections/Documents:**

(iii) **International Collections/Documents:**

Collection Development/Evaluation

10. Does your library have a written collection development policy for the development and use of document and information resources **in economics**?

Yes _____ No. _____

11. Is there a system for the periodic evaluation and analysis of your document and information resources in economics?

Yes _____ No _____

If "yes", kindly describe the method(s) used, and how often the evaluation/analysis is carried out:

SERVICES PROVIDED

Availability of Services

12. Which of the following services do you provide, particularly in economics?:

- _____ Abstracting and indexing services
- _____ Accessions bulletins
- _____ CD-ROM
- _____ Compilation of bibliographies
- _____ Current awareness service
- _____ Inter-library lending

- _____ Intent resources
- _____ Lending (Internal)
- _____ Literature searches
- _____ On-line
- _____ Photocopying
- _____ Reference
- _____ Selective Dissemination of Information (SDI)
- _____ Translations (Please specify languages)
- _____ Other service(s) provided (Please specify):

Users

13. If your university offers an MA programme in **economics**, please give the current (i.e. 1995) total number of:

(i) MA economics students registered with the library _____

(ii) Lecturers in economics _____

14. If you organise user orientation/instruction programmes **for your** users, kindly give a brief description of the **programmes**, **stating** their nature and content, and mentioning any programmes you may have specifically for economics:

15. Do you have a system for the identification of the needs of your users? if you do, please give details of such system(s) and mention any that relate specifically to economics:

16. Do you engage in publicity/public relations activities? If so, kindly give details of such activities, highlighting any that may be geared specifically to economics:

EQUIPMENT

Reprographic Equipment

17. Do you possess, or have access to, any of the following reprographic equipment?

Equipment	Possess	Access Only
Photocopying		
Microreproduction*		
Microreader/printer**		

Other (Please specify)

*Kindly specify type of equipment (e.g. microfilm, etc.)

**Kindly specify type of equipment (e.g. microfilm reader/priter etc.)

18. Is the quantity of the reprographic equipment you possess, **have** access to, adequate for your needs? If not, please indicate the additional equipment (type and quantity) that you would require if finance were available:

Communication Equipment/Facilities

19. Do you possess, or have access to, any of the following communication equipment/facilities?:

Equipment	Possess	Access Only
Telephone		
Telex		
Fax		
E-mail		

Other (Please specify)

20. Is the quantity of the communication equipment you possess, or have access to, adequate for your needs? If not, kindly state the additional equipment (type and quantity) you would require if finance were available:

Computers, Word processors, etc.

21. Do you possess, or have access to, any of the following equipment?:

Equipment	Possess	Access Only
Computers		
Word processors		
CD-ROM drives		
Other (Please specify)		

22. Is the quantity of the computers, word processors, etc. you possess, or have access to, adequate for your needs? If not, kindly indicate the additional computers, word processors, etc. (type and quantity) that you would require if finance were available:

LIBRARY AUTOMATION

Automated Services

23. Which of the following services/activities of your library are automated, and which are planned for automation? Please indicate, in the case of the latter, when automation is expected to commence:

Activity/Service	Already automated	Automation planned	Date Commencing
Acquisitions			
Cataloguing			
Circulation			
Current awareness			
Literature searches			
Periodicals (Processing)			
Selective Dissemination of Information (SDI)			
Production of Bibliographies, etc.			
Catalogues			
Periodical lists Including OPACs)			
Other (Please specify)			

24. In the provision of some of the above services (e.g. current awareness, SDI, literature searches, etc.) do you have access to, or possess, databases, CD-ROMs, etc.? If you do, kindly indicate the databases, CD-ROMs, etc. You have access to, or possess, and mention any of such sources that are on economics:

Databases (Including subjects covered)

CD-ROMs (Including subjects covered)

LIBRARY COOPERATION

25. Are you cooperating with any libraries in any of the following areas?

(a) Acquisitions

Yes _____ No _____

If “yes”, kindly describe the existing cooperative acquisitions programme arrangements between you and any of the libraries participating in the Collaborative MA Programme:

(Note: See Appendix F for list of libraries participating in the Collaborative MA Programme).

(b) **Reference**

Yes No

If “yes”, kindly describe the existing cooperative reference arrangements between you and any of the libraries participating in the Collaborative MA Programme:

(c) Inter-library Lending

Yes No

If “yes”, kindly:

(i) indicate the materials you generally lend most (e.g. books, periodical articles, journals, theses/dissertations, etc.) and rank them in order of the most loaned (1), to the least loaned (6) etc.

1.

2.

3.

4.

5.

6.

(ii) indicate the materials you generally borrow most (e.g. books, periodical articles, journals, theses/dissertations, etc.) and rank them in order of the most borrowed (1), to the least borrowed (6), etc.

1.

2.

3.

4.

5.

6.

(iii) Give the names of libraries participating in the Collaborative MA Programme with which you have inter-library lending arrangements:

1.

2.

3.

4.

5.

6.

(d) **Publication Exchanges**

Yes _____ No _____

If “yes”, kindly:

(i) give the names of the libraries participating in the Collaborative MA Programme with which you have publication exchange arrangements:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

(ii) write the titles of publications you send and those you receive in the exchange arrangement:

Publications you send

Name of Library	Titles of publications
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Publications you receive

Name of library	Titles of publications
_____	_____
_____	_____

Publications you receive cont.

(e) Gifts/Donations (of publications)

Yes _____ No . _____

If “yes”, kindly:

(i) give the names of the libraries participating in the Collaborative MA Programme to which you normally send such gifts/donations:

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____

(ii) Give the names of the libraries participating in the Collaborative MA Programme from which you normally receive such gifts/donations:

- 1 _____
- 2 _____
- 3. _____

Gifts/Donations (of publications)

4. _____
5. _____
6. _____

Union Catalogues/Union Lists

26. Do you have access to, or possess, any union catalogues of books and/or union lists of periodicals which help you to carry out the cooperative activities mentioned in Question 25 above?

Yes _____ No _____

If you do, kindly give details of such union catalogues/union lists:

Formal Agreement

27. Kindly give details of any formal agreements (e.g. written financial, administrative, legal agreements, etc.) that may exist, and to which you are party, to facilitate your participation in the co-operative activities mentioned in Questions 24-26. (Append copies of relevant documents, if possible):

STAFFING

28. Do you have staff specifically responsible for the development of information and document resources in economics?

Yes _____ No _____

If “yes”, kindly indicate the different categories of staff you have, and the number of staff in each category:

29. Are there any programmes (formal or informal) that help the staff to keep up-to-date with developments in economics and, in particular, its teaching and study in your university (e.g. seminars, workshops, consultations with faculty, etc.)?

Yes _____ No _____

If “yes”, please give details of the programmes:

30. Do you have staff visit/exchange programmes with any libraries?

Yes _____ No _____

If you do, please give details of any visit/exchange programmes you have with any of the libraries participating in the Collaborative MA Programme:

FUNDING

31. Kindly indicate your annual budgetary allocation for books, periodicals, etc. (i.e. document/information resources) for economics for the past three academic/financial years (i.e. 1991/92-1993-94).

- (Note: (i) If it is easier to show expenditure (instead of budgetary allocation), please do so.
(ii) For uniformity, ease of understanding and appreciation, kindly convert the amounts from your local currency to US dollars.

Budgetary allocation/ Expenditure	1991/92 (US\$)	1992/93 (US\$)	1994/95 (US\$)
Books			
Periodicals			
Other (Please specify)			

32. Considering your documentary and information needs, how would you describe your annual budgetary allocation/expenditure *for economics*?

Very adequate

Adequate

Inadequate

DEPARTMENTAL/FACULTY LIBRARIES

33. Does your university have a departmental/faculty library for economics?

Yes _____ No _____

34. If “yes”, does the departmental/faculty library come under the management/administration of the main university library?

Yes _____ No _____

35. If your answer to Question 34 is “No”, kindly describe any working relationship that may exist between the main library and the departmental/faculty library.

36. If your answer to Question 33 is “No” (i.e. if your university has no departmental/faculty library), is there any intention of establishing a departmental/faculty library in the future? Please give an indication of when it is likely to be established if there is an intention of establishing one.

COMMENTS

37. Any additional information you wish to give, or any comments you may wish to make, will be most welcome.

I am very grateful to you for your time and effort in completing the questionnaire

Please return the completed questionnaire to me by: 8 MAY, 1995.

DR. B.Y. BOADI,
DEPARTMENT OF LIBRARY AND INFORMATION STUDIES
UNIVERSITY OF BOTSWANA,
PRIVATE BAG 0022,
GABORONE,
BOTSWANA,
Southern Africa.

Appendix A

RECOMMEND TEXTBOOKS: MICROECONOMICS

(AERC. The common curriculum requirements for core courses in microeconomics, macroeconomics and quantitative methods. Nairobi, February 1992, pp. 13–16)

Textbooks for postgraduate microeconomics

- 1) HENDERSON, J.M. and QUANDT, R.E., *Microeconomic Theory*, third edition. New York/London: McGraw Hill, 1980. [ISBN 0-07-028101-7]
- 2) NICHOLSON W., *Microeconomic Theory: Basic Principles and Extensions*, fourth edition. Chicago: Dryden Press, 1989. [ISBN 0-03-021669-9]
- 3) RUSSELL, R.R. and WILKINSON, M., *Microeconomics: A Synthesis of Modern and Neoclassical Theory*. New York: John Wiley and Sons Limited, 1979. [ISBN 0-471-09-422-6]
- 4) SILBERBERG, Eugene, *The Structure of Economics: A Mathematical Analysis*. New York/London: McGraw Hill 1990. [ISBN 0-07-057453-7]

Reference books for postgraduate microeconomics

- 1) BARNUM, H.N. and SQUIRE, L.A., *A Model of an Agricultural Household: Theory and Evidence*. Baltimore: The Johns Hopkins University Press, 1980. [ISBN 0-8018-2225-4]
- 2) BAUMOL, W.J., *Economic Theory and Operations Analysis*. Fourth Edition. Englewood Cliffs: Prentice-Hall, 1977. [ISBN 0-631-13326-7]
- 3) BOADWAY, Robin, W. and BRUCE, Neil, *Welfare Economics: Theory and Applications*. Oxford: Basil Blackwell, 1984. [ISBN 0-631-13327-5]

- 4) BREIT, W. and HOCHMAN, H.M., eds., *Readings in Microeconomics*. Holt, Rinehart and Winston, 1971. [ISBN 0-8916-0795-7]
- 5) CHAMBERS, R.G., *Applied Production Analysis... A Dual Approach*. Cambridge: Cambridge University Press, 1988. [ISBN 0-521-31427-5]
- 6) CHENERY, H. And SRINIVASAN, T.N., (eds.), *Handbook of Development Economics*, 2 volumes. Amsterdam: North-Holland Press, 198/1989. [ISBN 0-444-70337-3]
- 7) DEATON, A., and MUELBAUER, J., *Economics and Consumer Behaviour*. Cambridge: Cambridge University Press, 1980. [ISBN 0521-29676-5]
- 8) ELLIS, F., *Peasant Economics: Farm Households and Agrarian Development*. Cambridge: Cambridge University Press, 1988. [ISBN 0-521-31008-3]
- 9) FRANK, A.C., *Microeconomic Principles* Phillip Allan Publishers, 1986.
- 10) FRIEDMAN, James W., *Games Theory with Applications to Economics*. London: Oxford University Press, 1990. [ISBN 0-19506355-4]
- 11) FRIEDMAN, Milton, *Essays in Positive Economics*. Chicago: University of Chicago Press, 1966. [ISBN 0-226-26403-3]
- 12) GRAVELLE, H. and REES, R., *Microeconomics*. Longmans, 1981. [ISBN 0-582-44705-0]
- 13) GREEN, H.A.J., *Consumer Theory*, revised edition. London: Witherby and Co., 1976. [ISBN 0-685-33720-0]
- 14) HAWKINS, C.J., *Theory of the Firm*. London: Macmillan. [ISBN 0333-12016-7]
- 15) HICKS, J.R., *Value and Capital: Inquiry into Some Fundamental Principles of Economic Theory*, second edition. London: Oxford University Press, 1946. [ISBN 0-19-828268-9]
- 16) HILDENBRAND, W. and KIRMAN, A.P., *Equilibrium Analysis: Variations of Themes by Edgeworth and Walras*. Amsterdam: North-Holland Press, 1988. [ISBN 0-444-7051 1-2]
- 17) HIRSHLEIFER, J., *Investment, Interest and Capital*. Engelwood Cliffs: Prentice-Hall, 1970.
- 18) INTRILIGATOR, M.D., *Mathematical Optimization and Economic Theory*. Englewood Cliffs: Prentice-Hall, 1971. [ISBN 0-13-561753-7]

- 19) JOSHI, J.M., *Theory of Value, Distribution and Welfare Economics*. New Delhi: Vikas Publishing House, 1979. [ISBN 0-7069-0868-6]
- 20) KOOPMANS, T.C., *Three Essays on the State of Economic Science*. Kelly, 1957. [ISBN 0-678-01397-7]
- 21) KOUTSOYIANNIS, A., *Modern Microeconomics*, second edition. London: Macmillan Publishers Limited, 1985. [ISBN 0-333-39737-1]
- 22) KREPS, D.M., *A Course in Microeconomic Theory*. Princeton: Princeton University Press, 1990. [ISBN 0-691-04264-0]
- 23) LAYARV, P.R.G. and WALTERS, A.A., *Microeconomic Theory*. New York: McGraw-Hill, 1978. [ISBN 0-07-039415-6]
- 24) MADDALAI, G.S. and MILLER, E., *Microeconomics: Theory and Applications*. New York: McGraw-Hill, 1989. [ISBN 0-07-039415-6]
- 25) MALINVAUD, E., *Lectures on Microeconomics: Theory*, revised edition. Amsterdam: North-Holland Press, 1985. [ISBN 0-444-87650-2]
- 26) MANSFIELD, E., *Microeconomics: Theory and Applications*, seventh edition. New York: W.W. Norton & Company, 1991. [ISBN 0-393-96079-X]
- 27) MANSFIELD, Edwin, ed., *Microeconomics, Selected Readings*, fifth edition. New York: W.W. Norton & Company, 1991. [ISBN 0-393-96079-X]
- 28) MEYER, R.A., *Microeconomic Decisions*. Boston: Houghton Mifflin Co., 1976.
- 29) PHILIPS, L., *Applied Consumption Analysis*, second edition. Amsterdam: North-Holland Press, 1983. [ISBN 0-444-86531-4]
- 30) QUIRK, J. and SAPOSNICK, R., *Introduction to General Equilibrium and Welfare Economics*. New York: McGraw-Hill, 1968.
- 31) RANDALL, Alan, *Resource Economics: An Economic Approach to Natural Resource and Environment Policy*, second edition. New York: John Wiley and Sons, 1987. [ISBN 0-471-87468-X]
- 32) ROWLEY, C.K., TOLLISON, R.V. and TULLOCK, G., (eds.), *Towards a Theory of the Rent-Seeking Society*. 1988.

- 33) SEN, A.K., *Poverty and Famines: All Essay 011 Entitlement and Deprivation*. Oxford: Clarendon Press, 1981. [ISBN 0-19-828463-2].
- 34) SHONE, Sir Robert, *Microeconomics*. Longman. [ISBN 0-582-00345-8]
- 35) SIMPSON, D., *General Equilibrium Analysis: An Introduction*. Oxford: Blackwell, 1975.
- 36) SINGH, I., SQUIRE, L. and STRAUS, (eds.), *Agricultural Household Models Extensions, Applications and Policy*. Baltimore: The Johns Hopkins University Press, 1986. [ISBN 0-8018-3149-0].
- 37) VARIAN, Hal, R., *Microeconomic Analysis*, third edition. New York/London: W.W. Norton, 1991. [ISBN 0-393-95735-7].
- 38) VARIAN, H.R., *Intermediate Microeconomic: A Modern Approach*. New York: W.W. Norton & Company, 1987.
- 39) VARIAN, Hal, R. and Yohe, Gary, *Problem Sets to Accompany Microeconomic Analysis*. VARIAN, Hal, R., *Microeconomic Analysis*. [ISBN 0-393-95924-4].
- 40) WEINTRAUB, E. Roy, *General Equilibrium Analysis: Studies in Appraisal*. Cambridge: Cambridge University Press. [ISBN 0-521-25968-1].
- 41) WALSH, V., *Introduction to Contemporary Microeconomics*. McGraw-Hill, 1970.
- 42) WALSH, V.C. and GRAHAM, H.N., *Classical and Neoclassical Theories of General Equilibrium*. London: Oxford University Press, 1980. [ISBN 0-19-502674-8].-

Appendix B

RECOMMENDED TEXTBOOKS: MACROECONOMICS

(AERC. The common curriculum requirements for core courses in microeconomics, macroeconomics and quantitative methods. Nairobi, February 1992, p. 27)

Recommended textbook for postgraduate macroeconomics

1) BRANSON, W.H., *Macroeconomic Theory and Policy*. Harper and Row, 1989.

Other useful macroeconomics textbooks

1) ACKLEY, G., *Macroeconomic Theory*. McGraw-Hill, 1973.

2) BLANCHARD, O.J. and FISCHER, S., *Lectures on Macroeconomics*. Boston: MIT Press, 1989.

3) DERNBERG, T.F., *Global Macroeconomics*. Harper and Row, 1989.

4) DORNBUSCH, R., *Open Economics*. Basic Books, 1980.

5) DORNBUSCH, R. and FISCHER, S., *Macroeconomics*. McGraw-Hill, 1984.)

6) EVANS, M.K., *Macroeconomic Activity*. Harper and Row, 1969.

7) KEYNES, J.M., *The General Theory of Employment, Interest and Money*, 1936.

8) LEVACIC, R. and REBMAN, A., *Macroeconomics: An Introduction to Keynesian - Neoclassical controversies*. MacMillan, 1982.

9) MUELLER, M.G., ed., *Readings in Macroeconomics*. Holt, Rinehart and Winston, 1970.

10) MUSSA, M., *A Study of Macroeconomics*. Amsterdam: North Holland, 1979.

- 11) OTT, D.J., OTT, A. and YOO, J.H., *Macroeconomic Theory*. McGrawHill, 1 975.
-]2) PARKIN, J.N., *Modern Macroeconomic* Prentice-Hall, 1982.
- 13) SARGENT, T.J., *Macroeconomic Theory*. Academic Press, 1987.
- 14) TEIGEN, R.L., ed., *Readings in Money, National Income and Stabilization Policy*. Richard D. Irwin Inc, 1978.
- 15) TURNOVSKY, S.J., *Macroeconomic Analysis and Stabilization*. Cambridge: Cambridge University Press, 1979.

Appendix C

RECOMMENDED TEXTBOOKS: QUANTITATIVE METHODS

(AERC. The common curriculum requirements for core courses in microeconomics, macroeconomics and quantitative methods. Nairobi, February 1992, p. 36–38)

Part I: Mathematical techniques and programming

Textbooks

- 1) CHIANG, A.C., *Fundamental Methods of Mathematical Economics*, third edition . McGraw-Hill, 1986.
- 2) INTRILLIGATOR, M.D., *Mathematical Optimization and Economic Theory*. Prentice Hall, 1971.
- 3) SEIERSTAD, A. and SYDSAETER, K., *Optimal Control Theory With Economic Applications*. Amsterdam: North-Holland, 1987.
- 4) TAHA, H.A., *Operations Research: An Introduction*, fourth edition. Macmillan, 1989.

References

- 1) BAZARAA, M. and SHETTY, C., *Non- Linear Programming, Theory and Algorithms*. New York: Wiley, 1979.
- 2) BELLMAN, R. and DREYFUS, S., *Applied Dynamic Programming*. Princeton: Princeton University Press, 1962.
- 3) BLIGHTER, C., PHILLIPS, D. and WILDE, D., *Foundations of Optimization*. Prentice- Hall, 1979.
- 4) DANTZIG, G.B., *Linear Programming and Extensions*. Princeton: Princeton University Press, 1963.

- 5) DREYFUS, S., *Dynamic Programming and the Calculus of Variations*. New York: Academic Press, 1965.
- 6) HADLEY, G., *Linear Programming*. Addison-Wesley, 1961.
- 7) HADLEY, G., *Non-linear and Dynamic Programming*. Addison-Wesley, 1964.
- 8) HADLEY, G. and KEMP, M.C., *Variational Methods in Economics*. Amsterdam: North-Holland, 1971 (Chapters 2 and 4).
- 9) INTRILLIGATOR, M.D., "Mathematical Programming with Applications to Economics," in K.J. Arrow and M.D. Intrilligator, eds., *Handbook of Mathematical Economics*, Vol. 1. Amsterdam: North-Holland, 1981.
- 10) KENDRICK, D., "Control Theory with Applications to Economics", in K.J. Arrow and M.D. Intrilligator, eds., *Handbook of Mathematical Economics*, Vol. 1. Amsterdam: North-Holland, 1981.
- 11) KOO, D., *Elements of Optimization: With Applications to Economics and Business*. New York: Springer-Verlag, 1977.
- 12) SENGUPTA, J.K. and FOX, K.A., *Economic Analysis and Operations Research: Optimization Techniques in Quantitative Economic Models*. Amsterdam: North-Holland, 1969.
- 13) SPIVEY, W. and THRALL, R.M., *Linear Optimization*. New York: Holt, Rinehart and Winston, 1970.

Part II: Econometric methods

Textbooks

- 1) DUTTA, M., *Econometric Methods*. South-Western Publishing Company .
- 2) GUJARATI, D., *Basic Econometrics*. McGraw-Hill, 1978.
- 3) INTRILLIGATOR, M.D., *Econometric Models, Techniques and Applications*. Prentice-Hall, 1980.
- 4) JOHNSTON, J., *Econometric Methods*. McGraw Hill, 1984.
- 5) MADDALA, G.S., *Econometrics*. McGraw-Hill.

- 6) PINDYCK, R.S. and RUBINFELD, D.L., *Econometric Models and Forecasts*, third edition. McGraw-Hill, 1991.

References

- 1) Adam L. and N.J. 1992. The PADISENT project and the future potential for networking in Africa: In *Electronic Network Advancing Science and Technology for Development*. Proceedings of the Workshop on Science and Technology Communication Network in Africa. 27–29 1992, Nairobi Kenya. Nairobi: The African Academy of Sciences/American Association for the Advancement of Science.
- 2) AMEMIYA, T., *Advanced Econometrics*. Cambridge: Harvard University Press, 1986.
- 3) Besemer, S.P. 1987. Criteria for the evaluation of library networks” *Resource Sharing and Information Networks*, vol 4, no. 1: 17–38.
- 4) Chow, G., *Econometrics*. McGraw-Hill, 1983.
- 5) Christ, C., *Econometric Models and Methods*. New York: John Wiley & Sons.
- 6) Granger, C.W.J. and NEWBOLD, P., *Forecasting Time Series*. Academic Press.
- 7) Havery, A.C., *Econometric Analysis of Time Series*. Allan Deddington, 1981.
- 8) Harrison, K.C. 1979. Cooperative acquisition: Formal and informal”. In *Resources Sharing of Libraries on Developing Countries, Proceedings of the 1977 I F L A / Unesco Pre-Session Seminar for Librarians from Developing Countries, Antwerp University August 30-September 4, 1977*. H.D/L/ Vervliet, K.G. Saur, 1979, pp.33-40.
- 9) Judge, G.G. et al., *Introduction to the Theory and Practice of Econometrics*. New York: John Wiley & Sons, 1988.
- 10) Klein N, L. and YOUNG, R., *An Introduction to Econometric Forecasting and Forecasting Models*. Lexington, 1980.
- 11) Kmenta, I., *Elements of Econometrics*. Macmillan, 1986.
- 12) Malinvaud, E., *Statistical Methods of Econometrics*. Amsterdam: North-Holland, 1970.

- 13) Patrick, R.J. 1972. Guidelines for Cooperation: Development of Academic Library Consortia. Santa Monica, California: Systems Development Corporation.
- 14) Spano, A., *Statistical Foundations of Econometric Modelling*. Cambridge: Cambridge University Press.
- 15) Theili , H., *Principles of Econometrics*. New York: John Wiley & Sons, 1971.
- 16) Willis, K., *Topics in Applied Econometrics*. Gray-Mills, 1973.

Appendix D

RECOMMENDED PERIODICAL AND SERIAL ARTICLES:

MICROECONOMICS AND MACROECONOMICS

Microeconomics

Recent extensions: introduction to game theory, alternative theories of maximization, collusion, contestable markets, and privatization and regulation.

Baumol, W. "Contestable markets: An uprising in the theory of industrial structure". American Economic Review, 72:1982.

Brock, W.A. "Contestable markets and the theory of industry, structure: review article". Journal of Political Economy, 1983, pp. 1055-1066.

Principles of welfare economics and social choice.

Efficiency, equity and welfare.

Bator, F.M. "The anatomy of market failure". Quarterly Journal of Economics, 1958.

Theory of second best

Cost-benefit analysis, shadow prices as public policy applications of the theory of second best.

Lipsey, R.G. and Lancaster, K. "The general theory of second best". Review of Economic Studies, XXIV (1956/57).

(Source: AERC. The common curriculum requirements for core courses in microeconomics, macroeconomics and quantitative methods. Nairobi, February 1992, pp. 11–12)

Macroeconomics

Review and extensions of basic macroeconomics model.

Hicks, J. "Mr. Keynes and the classics". *Econometric*, vol. 5, 1937, pp. 147-159.

Corden, M. "The relevance for developing countries of recent developments in macroeconomic theory". *The World Bank Research Observer*, vol. 2, no. 2, 1987.

Lipumba, N.I.H., et al. "Supply constrained macroeconomic model of Tanzania". *Journal of Economic Modelling* no. 3, 1989.

Consumption and saving

Ando, A. and Modigliani, F. "The life cycle hypothesis of saving: Aggregate implications and tests". *American Economic Review*, March, 1963.

Barro, R. "Are government bonds net wealth?" *Journal of political Economy*, 1974, p. 1095.

Deaton, A. "Saving in developing countries: Theory and review". *Proceedings of the World Bank Annual Conference on Development Economics*, 1989, pp. 61-96.

Giovannini, A. "The interest rate elasticity of savings in developing countries: The existing evidence". *World Development*, vol. 11, 1983, p. 601.

Giovannini, A. "Savings and the real interest in LDCs". *Journal of Political Economy*, vol. 18.

Raut, L.K. and Virmani, A. "Determinants of consumption and savings behaviour in developing countries". *The World Bank Economic Review*, vol. 3, no. 3, 1990.

Blinder, A.S. and Deaton A. "The time series consumption function revisited". *Brookings Papers on Economic Activity*, 2, 1985.

Hall, R.E. "Stochastic implications of the life cycle-permanent income hypothesis: Theory and evidence". *Journal of Political Economy*, vol. 86, no. 6, 1978.

Hall, R.E. "Intertemporal substitution in consumption". *Journal of Political Economy*, vol. 96, no. 2, 1988.

Investment

Alchian, A.A. "The rate of interest, Fisher's rate of return over costs and Keynes' internal rate of return". *American Economic Review*, December 1955.

Hirshleifer, J. "On the theory of the optimal investment decision". *Journal of Political Economy*, August 1958.

Jorgensen, D.W. "Capital theory and investment behaviour". *American Economic Review*, May 1963.

Jorgensen, D.W. "Econometric studies of investment behaviour". *Journal of Economic Review*, December 1971.

- Blejer, M.I. and Khan, M.S. "Government policy and private investment". *IMF Staff Papers*, Vol. 31, 1984, pp. 379-403.
- Khan, M.S. and Reinhart, C. "Private investment and economic growth in developing countries". *World Development*, January 1990, p. 19.
- Mussa, M. "External and internal adjustment costs and the theory of aggregate and firm investment". *Economica*, May 1977.

Money and financial markets

- Baumol, W.J. "The transactions demand for cash: An inventor theoretic approach". *Quarterly Journal of Economics*, vol. 66, 1952.
- Tobin, J. "Liquidity preference as behaviour towards risk". *Review of Economic Studies* 1958, p. 65.
- Tobin, J. "The interest-elasticity of transactions demand for cash". *Review of Economics and Statistics*, 1956.
- Oxford Economic Policy Review*, Special issue on Financial Repression, 1989.

Fiscal policy and the government budget constraint

- Christ, C.F. "A simple macroeconomic model with a government budget constraint". *Journal of Political Economy*, 1968, pp. 5367.
- Blinder, A.S. and Solow, R.M. "Does fiscal policy matter?" *Journal of Public Finance*, 1973, pp. 319-38.
- Carlson, K.M. and Spencer, R.W. "Crowding-out and its critics". *Federal Bank of St. Louis Review*, December 1975.
- Stiglitz, J. "On the relevance or irrelevance of the government financial policy". *NBER Working Papers*, 1983.
- Fischer, S. and Easterly, W. "The economics of the government budget constraint". *The World Bank Research Observer*, vol. 5, no. 2, 1990.

Inflation and expectations

- Laidler, D.E.W. and Parkin, J.N. "Inflation: A survey". *Economic Journal*, December 1975.
- Santomero, A.H. and Seater, J.J. "The inflation-unemployment tradeoff: A critique of the Literature". *Journal of economic literature*, June 1978.
- Friedman, M. "A role of monetary policy". *American Economic Review*, March 1968.
- Lucas, R.E. "Some international evidence of output-inflation tradeoffs". *American Economic Review*, 1973, p. 326.
- Sargent, T.J. and Wallace, N. "Rational expectations and the theory of economic policy". *Journal of Monetary Economics*, 1976, p. 169.
- Gordon, R.J. "Recent developments in the theory of inflation and unemployment". *Journal of Monetary Economics*, 1976, p. 185.

- Muth, J.F. "Rational expectations and the theory of price movements". *Econometric*, 1961.
- Fischer, S. and Modigliani, F. "Towards an understanding of the real effects and costs of inflation". *Weltwirts haftliches*, no. 114, 1978.
- Tegene, A. "The monetarist explanation of inflation: The experience of six African countries". *Journal of Economic Studies*, vol. 16, no. 1, 1989.
- London, A. "Money, inflation and adjustment policy in Africa: Some further evidence". *African Development Review*, vol. 1, no. 1, 1989.

Open economy macroeconomics

- Krugman, P. and Taylor, L. "Contractionary effects of devaluation". *Journal of International Economics*, 1978.
- van Wijnbergen, S. "Exchange rate management and stabilization policies in developing countries". *Journal of Development Economics*, 1986.
- Lizondo, J.S. "Exchange rate differential and balance of payments under dual exchange rates". *Journal of Development Economics*, vol. 26, 1987, 37.
- Lizondo, J.S. "Unification of dual exchange rate markets". *Journal of International Economics*, Vol. 22, 1987, p. 57.
- Pinto, B. "Black market premia, exchange rate unification, and inflation in sub-Saharan Africa". *The World Bank Economic Review*, vol. 3, no. 3, 1989.
- Agenor, P. "Stabilization policies in developing countries with a parallel market for foreign Exchange: A formal framework". *IMF Staff Papers*, September 1990.

Growth models

- Romer, P. "Increasing returns and long-run growth". *Journal of Political Economy*, vol. 94, no. 4, 1986, p. 1002.

Stabilization policies

- Khan, M.S. and Knight, M.D. "Stabilization programs in developing countries: A formal framework". *IMF Staff Papers*, vol. 28, no. 1, 1981.
- Khan, M.S. and Montiel, P. "Growth oriented adjustment programs: A conceptual framework". *IMF Staff Papers*, vol. 36, 1989, p. 279.
- Helleiner, G. "The IMF and Africa in the 1980s". *Essays in International Finance*, no. 152, 1983.

Disequilibrium macroeconomic models

Limitations of equilibrium models; quantity constrained and rationing models

- Barro, R. and Grossman, H. "A general disequilibrium model of income and employment". *American Economic Review*, 1971, p. 82.
- Bevan, D., et al. "Pleasant supply response in rationed economies". *World Development*, vol. 15, no. 4, 1987.

New macroeconomics

New classical critique; new and post Keynesian critiques

Blinder, A.S. “Keynes, Lucas, and scientific progress”. *American Economic Review*. May 1987.

Sargent, T.J. and Wallace, N. “Rational expectations and the theory of economic policy”. *Journal of Monetary Economics*, 1976, p. 169-184.

Fischer, S. “Long-term contracts, rational expectations, and the optimal money supply rule”. *Journal of Political Economy*, February 1977, pp. 191-206.

Taylor, J.B. “Staggered Wage Setting in a Macro Model”. *American Economic Review* May 1979.

Gordon, R.J. “Output Fluctuations and Gradual Price Adjustment”. *Journal of Economic Literature*, June 1981.

(Source: AERC. The common curriculum requirements for core courses in microeconomics, macroeconomics and quantitative methods. Nairobi, February 1992, pp. 18–26)

Appendix E

UNIVERSITIES PARTICIPATING IN THE COLLABORATIVE MA PROGRAMME IN ECONOMICS

Addis Ababa University, Addis Ababa, Ethiopia
University of Botswana, Gaborone, Botswana
University of Cape Coast, Cape Coast, Ghana
University of Dar es Salaam, Dar es Salaam, Tanzania
Eduardo Mondlane University, Maputo, Mozambique
University of Ghana, Legon, Ghana
Kenyatta University, Nairobi, Kenya
National University of Lesotho, Roma, Lesotho
Makerere University, Kampala, Uganda
University of Malawi, Zomba, Malawi
University of Mauritius, Reduit, Mauritius
Moi University, Eldoret, Kenya
University of Nairobi, Nairobi, Kenya
University of Namibia, Windhoek, Namibia
Fourah Bay College, University of Sierra Leone, Freetown, Sierra Leone
University of Swaziland, Kwaluseni, Swaziland
University of Zambia, Lusaka, Zambia
University of Zimbabwe, Harare, Zimbabwe

Appendix II

DIRECTORY OF PARTICIPATING LIBRARIES

1. ADDIS ABABA UNIVERSITY (Category B)

University Librarian: Mr. Tayet

Economics Librarian/Contact Person: Ms. Berhanawit Fanossie (Librarian, Faculty of Business and Economics)

Mailing address: Addis Ababa University,
P.O. Box 1176,
Addis Ababa,
Ethiopia.

Telephone: (251-1)124928; 553990 Ext. 241

Fax: c/o (251-1) 550655.

Telex: -

E-mail: Tayet@padis.gn.apc.org

2. UNIVERSITY OF BOTSWANA (Category B)

University Librarian: Mrs. H. Kay Raseroka

Economics Librarian/Contact Person: Mrs. C.I.D. Nyirenda

Mailing address: University of Botswana,
Private Bag 0022,
Gaborone,
Botswana .

Telephone: (267) 351151

Fax: (267) 356591

Telex: 2429 BD

E-mail: Raseroka@noka.ub.bw (Librarian)

Nyirendc@noka.ub.bw (Economics
Librarian/Contact Person)

3. UNIVERSITY OF CAPE COAST (Category A)**University Librarian:** Mr. Richard A. Arkaifie**Economics Librarian/Contact Person:** Mr. Kofi Adwin**Mailing address:** University of Cape Coast,
University Post Office,
Cape Coast,
Ghana.

Telephone: (233-042) 32482

Fax: (233-042) 32482

Telex: 2552 UCC GH

E-mail: Ucclib@ucc.gn.apc.org

4. UNIVERSITY OF DAR ES SALAAM (Category B)**University Librarian:** Dr. J.M. Newa (Director)**Economics Librarian/Contact Person:** Dr. M.P. Nyeremba**Mailing address:** University of Dar-es-Salaam,
P.O. Box 35091,
Dar es Salaam,
Tanzania.

Telephone: (255-51) 43500

Fax: (255-51) 46107

Telex: -

E-mail: Lib@unidar.gn.apc.org

5. EDUARDO MONDLANE UNIVERSITY (Category A)**University Librarian:****Economics Librarian/Contact Person:** Dr. Peter Coughlin**Mailing address:** Faculty of Economics
Eduardo Mondlane University C. Postal 257,
Maputo, Mozambique.

Telephone: (258-1)741301

Fax: (258-1) 492592

Telex: -

E-mail: -

6. **UNIVERSITY OF GHANA** (Category B)

University Librarian: Mrs. Christine O. Kisiedu

Economics Librarian/Contact Person: Mr. Gaspard K. Afachao

Mailing address: University of Ghana,
P.O.Box 25,
Legon,
Ghana.

Telephone: (233-21) 774967; 775309

Fax: (233-21) 667701

Telex: 2556 UG GH

E-mail: Balme@ug.gh.apc.org

7. **KENYATTA UNIVERSITY** (Category A)

University Librarian: Mr. J.M. Nganga

Economics Librarian/Contact Person: Ms. Alice Bulogosi/
Mrs. Grace Kimani

Mailing address: Kenyatta University,
P.O. Box 43844,
Nairobi,
Kenya .

Telephone: (254-2) 810901-11

Fax: (254-2) 810759

Telex: -

E-mail: -

8. **NATIONAL UNIVERSITY OF LESOTHO** (Category A)

University Librarian: Mrs. M.M. Lebotsa (Acting)

Economics Librarian/Contact Person: Mr. Albert Kakoma

Mailing address: National University of Lesotho,
P.O. Roma 180,
Lesotho

Telephone: (266) 340601

Fax: (266) 340000

Telex: 4303 LO

E-mail: -

9. MAKERERE UNIVERSITY (Category A)

University Librarian: Mr. James Mugasha

Economics Librarian/Contact Person: Ms. Sophie Katuramu

Mailing address: Makerere University,

P.O.Box 7062,

Kampala,

Uganda .

Telephone: (256-41) 531041

Fax: (256-41) 530756

Telex: -

E-mail: Mli@mukla.apc.org

10. UNIVERSITY OF MALAWI (Category B)

University Librarian: Mr. Steve S. Mwiyeriwa

Economics Librarian/Contact Person: Mr. A.W.C. Msiska
(Librarian, Chancellor College)

Mailing address: University of Malawi,

P.O.Box 280,

Zomba,

Malawi.

Telephone: (265) 522222

Fax: (265) 523225

Telex: 44742 CHANCOL MI

E-mail: -

11. UNIVERSITY OF MAURITIUS (Category A)

University Librarian: Mr. B.R. Goordyal

Economics Librarian/Contact Person: Mr. B. Dabee

Mailing address: Faculty of Social Studies and Humanities,

University of Mauritius,

Reduit,

Mauritius,

Indian Ocean.

Telephone: (230) 4541041

Fax: (230) 4549642

Telex: 4621 UNIM IW

E-mail: -

12.MOI UNIVERSITY (Category A)

University Librarian: Mr. Tirong arap Tanui

Economics Librarian/Contact Person: Mr. Francis O. Oluoch

Mailing address: Moi University,
P.O.Box 3900,
Eldoret,
Kenya.

Telephone: (254-0321) 43620

Fax: (254-032]) 43047

Telex: 35047 KE

E-mail: -

13.UNIVERSITY OF NAIROBI (Category B)

University Librarian: Mrs. Mary E. Kimani

Economics Librarian/Contact Person: Mr. Joseph Mulwa

Mailing address: University of Nairobi,
P.O.Box 30197,
Kenya,
Nairobi.

Telephone: (254-2) 334244 Ext. 28501

Fax: (254-2) 336885

Telex: 22095

E-mail: IMalo@ken.healthnet.org

14.UNIVERSITY OF NAMIBIA (Category A)

University Librarian: Mr. K.A. Avafia

Economics Librarian/Contact Person: Ms. Patricia Spann

Mailing address: University of Namibia,
Private Bag 13301,
Windhoek,
Namibia.

Telephone: (264-061) 42421

Fax: (264-061) 42421; 3076

Telex: -

E-mail: -

15. UNIVERSITY OF SIERRA LEONE (Category A)

University Librarian: Mrs. D. Thomas

Economics Librarian/Contact Person: Mr. Ibrahim S. Kamara

Mailing address: Fourah Bay College,
University of Sierra Leone,
Mt. Aureol
Freetown,
Sierra Leone.

Telephone: (22-232) 9471

Fax: -

Telex: -

E-mail: Fbc.library.fbc@sl.boabab.com

16. UNIVERSITY OF SWAZILAND (Category A)

University Librarian: Miss M.R. Mavuso

Economics Librarian/Contact Person: Mr. Abahle Thwala

Mailing address: University of Swaziland,
Private Bag 4,
Kwaluseni,
Swaziland .

Telephone: (268) 84011

Fax: (268) 85276

Telex: 2087 WD

E-mail: -

17. UNIVERSITY OF ZAMBIA (Category A)

University Librarian: Dr. H. Mwacalimba

Economics Librarian/Contact Person: Mrs. Norah M. Mumba

Mailing address: University of Zambia,
P.O. Box 32379,
Lusaka,
Zambia.

Telephone: (260-1) 250845

Fax: ZA 44370

Telex: (260-1) 250845

E-mail: Library@unza.zm

18. UNIVERSITY OF ZIMBABWE (Category B)

University Librarian: Mr. S.M. Made

Economics Librarian/Contact Person: Ms. Sheila Ndlovu

Mailing address: University of Zimbabwe,

P.O. Box MP45,

Mount Pleasant,

Harare,

Zimbabwe.

Telephone: (263-4) 303211

Fax: (263-4) 335383

Telex:: 26580 ZW

E-mail: Mainlib@uzlib.uz.zw

Appendix III a

SPECIAL COLLECTIONS (ARRANGED BY UNIVERSITY)

University	National collections	Regional collections	International collections
Addis Ababa	Ethiopia Collection	-	World Bank publications
Botswana	Conference, workshop and seminar papers Government publications Newspapers Theses and dissertations	Economic Intelligence Unit: Country reports	World Bank Staff working papers
Cape Coast	Ghana Collection (Includes economic books on Ghana Theses and dissertations	ECOWAS documents	World Bank, IMF and UN publications (Depository library for UN publications)
Dar es Salaam	East Africana Collection (Contains all important documents on Tanzania)	East Africana Collection and Periodicals Collection (Reports, statistics, etc on the region)	UN publications and publications of other UN bodies
Eduardo Mondlane	Government publications	-	-
Ghana	Africana Collection (Contains materials on Ghana)	Africana Collection (Contains materials on the West African region)	United Nations Library
Kenyatta	Africana Collection Government Publications Theses and dissertations	-	World Bank publications (Depository library for World Bank publications)
Lesotho	University archives	-	IMF, World Bank and UN publications

Makerere	Bank of Uganda reports Government publications Theses and dissertations (Depository library for Uganda publications)	East African Community publications	World Bank, FAO and UNESCO publications (Depository library for UN publications)
Malawi	Malawi Collection (Contains government publications, reports, etc., on Malawi)	ECOWAS and SADC documents	IMF, World Bank and UN publications
Mauritius	Government publications (and all documents published in the country)	Documents relating to Seychelles, Reunion, Madagascar and other African countries	UN, FAO, WHO, UNESCO, UNDP, UNEP, ILO, WTO, IEEP, IMF and World Bank publications (Depository for UN, IMF and World Bank publications)
Moi	-	-	-
Nairobi	Conference proceedings Government reports and documents Theses and dissertations by Kenyans and about Kenya	East African special collection (Contains regional documents and other official publications)	UN, FAO, WHO, GATT, UNEP, UN-ECA, ILO, UNIDO, IMO, and IAEA publications (Depository library for UN publications)
Namibia	-	-	UN, FAO, and UNESCO publications (Depository library for UN and FAO publications)
Sierra Leone	Bank of Sierra Leone publications Government publications	ECOWAS and Mano River Union documents	UN, IMF and World Bank publications (selected documents) EEC and Commonwealth publications
Swaziland	Government publications Theses and dissertations	SADC documents	World Bank publications Publications of the UN and its agencies
Zambia	Colonial papers Government publications	COMESA, PAIDIS and SADC documents Documents on Southern Africa	ILO, UN, UNSECO and World Bank publications
Zimbabwe	Theses and dissertations Zimbabweana	CODESRIA and SADC documents	IMF, World Bank and UN publications (FAO, IAEA, ILO, UNDP, UNESCO, UNECA, UNICEF)

Appendix III b

SPECIAL COLLECTIONS (ARRANGED BY SUBJECT)

AFRICAN COLLECTION	Ghana Kenyatta
ARCHIVES, UNIVERSITY (NATIONAL)	Lesotho
BANK OF SIERRA LEONE PUBLICATIONS	Sierra Leone
BANK OF UGANDA REPORTS	Makerere
BOLESWA DOCUMENTS	Lesotho
CODESRIA DOCUMENTS	Zimbabwe
COLONIAL PAPERS	Zambia
COMESA	Zambia
COMMONWEALTH PUBLICATIONS	Sierra Leone
CONFERENCE, WORKSHOP AND SEMINAR PAPERS (NATIONAL)	Botswana Nairobi
DISSERTATIONS See THESES AND DISSERTATIONS	
EAST AFRICAN COMMUNITY PUBLICATIONS	Makerere
EAST AFRICANA COLLECTION	Dar es Salaam Nairobi
ECONOMIC INTELLIGENCE UNIT: COUNTRY REPORTS	Botswana

ECOWAS DOCUMENTS

Cape Coast
Malawi
Sierra Leone

EEC PUBLICATIONS

Sierra Leone

ETHIOPIAN COLLECTION

Addis Ababa

FAO PUBLICATIONS

Makerere
Mauritius
Nairobi
Namibia
Zimbabwe

GATT PUBLICATIONS

Nairobi

GHANA COLLECTION

Cape Coast

GOVERNMENT PUBLICATIONS (NATIONAL)

Botswana
Eduardo Mondlane
Kenyatta
Makerere
Malawi
Mauritius
Nairobi
Sierra Leone
Swaziland
Zambia

IAEA PUBLICATIONS

Nairobi
Zimbabwe

IBRD See WORLD BANK
IEEP PUBLICATIONS

Mauritius

ILO PUBLICATIONS

Mauritius
Nairobi
Zambia
Zimbabwe

IMF PUBLICATIONS	Cape Coast Lesotho Malawi Mauritius Sierra Leone Zimbabwe
IMO PUBLICATIONS	Nairobi
MADAGASCAR (DOCUMENTS ON)	Mauritius
MALAWI COLLECTION	Malawi
MANO RIVER UNION PUBLICATIONS	Sierra Leone
NEWSPAPERS (NATIONAL)	Botswana
PADIS DOCUMENTS	Lesotho Zambia
REUNION (DOCUMENTS ON)	Mauritius
SADC DOCUMENTS	Botswana Lesotho Malawi Swaziland Zambia Zimbabwe
SEYCHELLES (DOCUMENTS ON)	Mauritius
SOUTHERN AFRICA	Zambia
THESES AND DISSERTATIONS (NATIONAL)	Botswana Cape Coast Kenyatta Makerere Nairobi Sierra Leone Swaziland Zimbabwe

UN PUBLICATIONS

Cape Coast
Dar es Salaam
Ghana
Lesotho
Malawi
Mauritius
Nairobi
Namibia
Sierra Leone
Swaziland
Zambia
Zimbabwe

UNDP PUBLICATIONS

Mauritius
Zimbabwe

UNECA PUBLICATIONS

Nairobi
Zimbabwe

UNEP PUBLICATIONS

Mauritius
Nairobi

UNESCO PUBLICATIONS

Makerere
Mauritius
Namibia
Zambia
Zimbabwe

UNICEF

Zimbabwe

UNIDO PUBLICATIONS

Nairobi

WHO PUBLICATIONS

Mauritius
Nairobi

WTO PUBLICATIONS

Mauritius

WORLD BANK PUBLICATIONS

Addis ababa
Botswana
Cape Coast
Ghana
Kenyatta
Lesotho
Makerere
Malawi
Mauritius
Sierra Leone
Swaziland
Zambia
Zimbabwe

ZIMBAWEAN

Zimbabwe

Appendix IVa

Databases and CD-ROMS on economics and related subjects (arranged by University)

University	Databases	CD-ROMS
Addis Ababa	-	PAIS (Public Affairs Information System) Social Sciences Citation Index
Botswana	-	EconLit SARDIUS (Materials on SADC) Social Sciences Citation Index
Cape Coast	-	Social Sciences Index (Expected soon)
Dar es Salaam	-	PAIS (Public Affairs Information System) POPLINE Social Sciences Index
Eduardo Mondlane	-	-
Ghana	-	PAIS (Public Affairs Information System) Social Sciences Index
Kenyatta	-	-
Lesotho	-	DAI (Social Sciences) UNESCO Database (Social Sciences)
Makerere	-	PAIS (Public Affairs Information System) Social Sciences Index
Malawi	-	EconLit PAIS (Public Affairs Information System) Social Sciences Index
Mauritius	-	-
Moi	-	-
Nairobi	IDS Research Papers (Economics) Theses database (Economics)	Social Sciences Citation Index
Namibia		Social Sciences Citation Index UNESCO Database (Social Studies)
Sierra Leone	-	-
Swaziland	-	Current Contents (Social Sciences)
Zambia	-	PAIS (Public Affairs Information System) Social Sciences Citation Index Social Sciences Index
Zimbabwe	-	EconLit

Appendix IV b

Databases and CD-ROMS on economics and related subjects (arranged by title)

DAI (social sciences)	Lesotho
ECONLIT	Botswana Malawi Zimbabwe
IDS research papers (economics)	Nairobi
PAIS (public affairs information system)	Addis Ababa Dar es Salaam Ghana Makerere Malawi Zambia
POPLINE	Dar es Salaam
SARDIUS (MATERIALS ON SADC)	Botswana
SOCIAL SCIENCES CITATION INDEX	Addis Ababa Botswana Nairobi Namibia Zambia
SOCIAL SCIENCES INDEX	Cape Coast Dar es Salaam Ghana Malawi Zambia
THESES DATABASE (Economics)	Nairobi
UNESCO DATABASE (social sciences)	Lesotho Namibia

Appendix V

UNION LIST OF PERIODICALS ON MICROECONOMICS, MACROECONOMICS AND QUANTITATIVE METHODS

(Note: An asterisk (*) means that holdings were not indicated)

AFRICAN DEVELOPMENT	Sierra Leone :Vol. 20, no. 1,1976-
AFRICAN DEVELOPMENT REVIEW	Sierra Leone : Vol. 1-6, 1989-1994
AFRICAN ECONOMIC DIGEST	Addis Ababa: Vol. 1, 1980 17,1996 Nairobi : “Up to 1991” (No further details given)
AFRICAN ECONOMIC HISTORY	Makerere : Nos. 1-18, 1976-1989 (Incomplete) 1996-
AFRICAN JOURNAL OF ECONOMIC POLICY	Makerere : Vol. 1, no. 2,1994
AFRO-ASIAN ECONOMIC REVIEW	Addis Ababa: Vol. 10, nos. 100-109, 1968 11, nos. 112-116,1969
AMERICAN ECONOMIC REVIEW	Addis Ababa: Vols. 71-80, nos. 1-4, 1980- 1990 84-85, nos. 1-4, 1994-1995 Botswana : Vol. 50, 1960- Cape Coast* Eduardo Mondlane* Ghana : Vol. 53, 1963, March 69,1979, May 72,1982

Kenyatta:	Vol. 60, no.5 1970 61, nos. 2-4, 1971 62, no.1, 1972 63, nos.1,2, 4, 1973 64, nos.1-3,5, 1974 65, no.4, 1975 66, no.3, 1976 68, no.6, 1978 69, nos.2,3,5, 1979 70, nos. 2, 5, 1980 71, nos. 1-2, 4-5, 1981 72, nos. 3-4, 1982 73, nos. 2-3, 5, 1983 74, nos.3,5, 1984 75, nos.1,4,5, 1985 76, nos. 2, 4, 5, 1986 80, nos. 3-5, 1990 81, nos.1,3-5, 1991 82, nos.1-5, 1992 83, nos. 1-4, 1993 84, nos. 1-4, 1994 85, no. 1, 1995
Lesotho:	Vol. 20, 1930 43-44, 1953-1954 49-65, 1959-1975 77-83, 1987-1993 85, 1995
Makerere:	Vol. 1, 1991- (Incomplete)
Malawi*	
Nairobi:	Up to 1991" (No further details given)
Nambia:	Vols. 73-81, 1983-1991
Sierra Leone:	Vols. 1-84, 1911-1994
Swaziland*	
Zambia:	Vol. 62, 1972-
Zimbabwe:	Vol. 1, 1911-

AMERICAN JOURNAL OF AGRICULTURAL ECONOMICS

Nairobi: Up to 1990” (No further details given)

AMERICAN JOURNAL OF SOCIOLOGY AND ECONOMICS

Addis Ababa: Vols. 46-54, nos. 1-4, 1987-1995

APPLIED ECONOMICS

Makerere: Vol. 1, 1969-

APPLIED STATISTICS

Nairobi: Vol. 39, 1990
40, no. 1, 1991

BANCO NATIONALE DE PARIS REVUE ECONOMIQUE

Addis Ababa: Nos. 1-4, 1967-1974

BANGLADESH ECONOMIC REVIEW Addis Ababa: Nos. 1-4, 1967-1974

BANKING WORLD

Swaziland*

BULLETIN OF ECONOMIC RESEARCH

Addis Ababa: Vols. 33-40, nos. 1-4, 1981-1988
Makerere : 1966-
Zimbabwe: Vol. 23, 1971

CAMBRIDGE JOURNAL OF ECONOMICS

Addis Ababa: Vols. 1-8, nos. 1-4, 1968-1975
14-17, nos. 1-4, 1981-1984
21, nos. 1-4, 1988

Eduardo Mondlane*

Zimbabwe*

CANADIAN JOURNAL OF ECONOMICS

Makerere: 1966-
Nairobi: “Up to 1991 (No further details given)
Swaziland*

COMMUNIST ECONOMIES

Namibia: 1989-

CZECHOSLOVAKIA ECONOMIC PAPER

Addis Ababa: Nos. 1-12, 1959-1970

DEVELOPING ECONOMICS Addis Ababa: Vols. 1-27, nos. 1-4, 1965-1989
 29-30, nos. 1-4, 1991-1992
 32-33, nos. 1-4, 1987-1995

Makerere*
 Swaziland*

DEVELOPMENT STUDIES IN AFRICA
 Swaziland *

EASTERN AFRICA ECONOMIC REVIEW
 Swaziland*

ECONOMETRICA Addis Ababa: Vols. 34-36, 1966-1968
 Botswana: Vols. 26-31, 1958-1963
 45, 1977-
 Cape Coast*
 Eduardo Mondlane*
 Ghana: Vol. 29, 1961
 Lesotho: Vols. 37-43, 1969-1975
 55-61, 1987-1993
 63, 1995
 Makerere: 1996-
 Malawi*
 Mauritius*
 Nairobi: "Up to 1990" (No further details given)
 Sierra Leone: Vols. 15-16, 1947-1948
 28-49, 1960-1981
 51-52, 1983-1984
 Zambia: Vols. 48-61, 1980-1993
 Zimbabwe: 1993

ECONOMETRICS Ghana: Vols. 5, 1937, pp.147-159

ECONOMIC ACTIVITY Addis Ababa: Vols. 9-20, nos. 1-4, 1969-1977

ECONOMIC APPLIQUEE Addis Ababa: Vols. 31-35, nos. 1-4, 1978-1982

ECONOMIC BULLETIN OF GHANA Addis Ababa: Vols. 2-4, nos. 1-4, 1972-1974

Makerere: Vol. 3, nos. 6-7, 1959
 4, no. 2, 1974

ECONOMIC DEVELOPMENT AND CULTURAL CHANGE
 Addis Ababa: Vols. 1-5, nos. 1-4, 1952-1956

8-41, nos. 1-4, 1959-1993

Botswana: Vols. 3, 1954/1955-
(Vols. 3-15 on microfilm)

Makerere: Vols. 1-38, 1952-1990
1996-

Nairobi: "Up to 1992" (No further details given)

Namibia: Vol. 31-39, 1982-1990

Swaziland*

ECONOMIC DIGEST Makerere: Vols. 4-12, 1951-1959 (Incomplete)
Swaziland*

ECONOMIC HISTORY Nairobi: "Up to 1991" (No further details given)

ECONOMIC HISTORY REVIEW Swaziland*

ECONOMIC IMPACT Sierra Leone: 1973-1989

ECONOMIC INTELLIGENCE Addis Ababa: Vols. 36-48, nos. 1-4, 1968-1973

ECONOMIC JOURNAL Addis Ababa: Vols. 59-104, 1949-1994
Botswana: Vol. 74, 1964-
Cape Coast*
Lesotho: Vols. 30-50, 1920-1940
54-57, 1994-1947
60-103, 1950-1993
105, 1995
Makerere: 1996-
Nairobi: "Up to 1991" (No further details given)
Sierra Leone: Vols. 39-47
49-102, 1949-1992
Swaziland*
Zimbabwe: Vol. 24, 1914

ECONOMIC RECORD Addis Ababa: Vols. 53-64, 1977-1988
Zimbabwe: Vol. 21, 1945-

ECONOMIC REVIEW Addis Ababa: Vol. 20, nos. 1-2, 1980
Cape Coast*
Makerere: Vols. 7-8, 1975-1976 (Incomplete)

ECONOMIC SITUATION IN THE WORLD AND IN WESTERN GERMANY

	Addis Ababa: Spring - Autumn, 1966-1972
ECONOMIC STUDIES	Addis Ababa: Vols. 16-27, 1976-1986
ECONOMIC SYSTEM RESEARCH	Namibia: 1989-
ECONOMICA	Addis Ababa: Vols. 1-55, 1934-1988 Eduardo Mondlane* Lesotho: Vols. 13-21, 1946-1954 25-51, 1958-1984 53-60, 1986-1993 62, 1995 Makerere: 1996- Malawi* Mauritius* Nairobi: "Up to 1987" (No further details given) Swaziland* Zimbabwe: Vol. 1, 1934-
ECONOMICS	Addis Ababa: Vols. 1-50, 1970-1994 Nairobi: "Up to 1995" (No further details given) Sierra Leone: Vols. 8-50, 1973-1995
ECONOMICS LETTER	Addis Ababa: Vol. 47-49, nos. 1-4, 1995
ECONOMICS OF PLANNING	Addis Ababa: Vols. 5-11, 1965-1971 13-21, 1973-1987
ECONOMIST	Makerere: Vols. 234-240, 1970-? Namibia: 1983- Sierra Leone: Vols. 115-334, 1932-1995 Swaziland*
ECONOMY AND SOCIETY	Makerere: Vols. 2-5, 1974-1976 1996- Namibia: 1987- Swaziland*
EGYPTIAN STATISTICAL JOURNAL	Addis Ababa: Vols. 9-16, nos. 1-2, 1965-1972
FINANCIAL MAIL	Nairobi: "Up to 1991" (No further details given) Namibia: 1983- Swaziland*

HAVARD BUSINESS REVIEW Eduardo Mondlane*

IMF STAFF PAPERS Ghana: Vol. 37, no. 3, 1990
 Kenyatta: Vol. 27, nos. 3-4, 1980
 30, nos. 2, 4, 1983
 31, nos. 3-1984
 32, nos. 3-4, 1985
 33, nos. 1-4, 1986
 34, nos. 1, 2, 4, 1987
 35, nos. 1-3, 1988
 Lesotho: Vols. 14-35, 1967-1988
 Sierra Leone: Vols. 29-36, 1982-1989
 Swaziland*
 Zambia: Vols. 14- 41, 1967-1994

INDIAN JOURNAL OF AGRICULTURAL ECONOMICS
 Addis Ababa: Vols. 32-43, nos. 1-4, 1977-1988

INDUSTRIAL AND LABOUR RELATIONS REVIEW
 Nairobi: "Up to 1991" (No further details given)

INDUSTRIAL LABOUR Makerere: Vols. 11-18, 1972-1979 (Incomplete)

INDUSTRIAL RELATIONS Addis Ababa: Vols. 18-27, nos. 1-3, 1979-1988
 Makerere: Vols. 9-10, 1970-1971

INTER ECONOMICS Addis Ababa: Nos. 1-12, 1966-1971

INTERNATIONAL ECONOMIC PAPERS
 Addis Ababa: Nos. 1-4, 1951-1954

INTERNATIONAL ECONOMIC REVIEW
 Addis Ababa: Vols. 18-29, nos. 1-3, 1977-1989
 33-36, nos. 1-3, 1992-1995
 Makerere: Vols. 1-31, 1960-1990 (Incomplete)
 Swaziland*

INTERNATIONAL FINANCIAL STATISTICS
 Swaziland*

INTERNATIONAL LABOUR DOCUMENTATION
 Namibia: 1988-

INTERNATIONAL LABOUR REVIEW

Eduardo Mondlane*

Namibia: 1988-

Swaziland*

JOURNAL OF AFRICAN ECONOMIES

Addis Ababa: Vol. 3, nos. 1-3, 1991

Botswana: Vol. 1, 1992-

Eduardo Mondlane*

Swaziland*

JOURNAL OF AGRICULTURAL ECONOMICS

Makerere: Vols. 11-41, 1954-190 (Incomplete)
1996-

JOURNAL OF AGRICULTURAL ECONOMICS RESEARCH

Makerere: Vols. 40-45, 1988-1993

Sierra Leone: Vol. 43, no. 1-

JOURNAL OF AMERICAN STATISTICS

Nairobi: "Up to 1991" (No further details given)

JOURNAL OF ASIAN AND AFRICAN STUDIES

Eduardo Mondlane*

JOURNAL OF DEVELOPMENT ECONOMICS

Eduardo Mondlane*

Lesotho: Vols. 1-42, 1974-1993

46-48, 1978-1980

63, 1995

Makerere: Vol. 2, nos. 1-4, 1975

Malawi*

Nairobi: "Up to 1986" (No further details given)

Swaziland*

Zambia*

JOURNAL OF DEVELOPMENT STUDIES

Makerere: Vols. 3-15, 1966-1979 (Incomplete)

Namibia: 1987-

Swaziland*

JOURNAL OF ECONOMETRICS

Addis Ababa: Vols. 7-38, nos. 1-3, 1978-1988
 Makerere: Vols. 1-4, 1973-1976 (Incomplete)
 1996-

JOURNAL OF ECONOMIC ABSTRACTS

Addis Ababa: Vols. 1-2, 1963-1964
 4-6, 1966-1968
 Makerere: Vols. 1-6, 1963-1968

JOURNAL OF ECONOMIC HISTORY

Makerere: Vols. 1-46, 1941-1986 (Incomplete)
 Nairobi: "Up to 1990" (No further details given)
 Swaziland*

JOURNAL OF ECONOMIC LITERATURE

Addis Ababa: Vols. 1-30, nos. 1-4, 1963-1992
 32, nos. 2 & 3, 1994
 Botswana: Vol. 7, 1969-
 Kenyatta: Vols. 28, nos. 3-4, 1990
 29, nos. 1-3, 1991
 30, nos. 1-4, 1992
 32, nos. 2, 1994
 33, nos. 1, 1995

 Lesotho: Vols. 4-11, 1966-1973
 25-31, 1987-1993
 Makerere: Vols. 1-28, 1969-1990 (Incomplete)
 Malawi*
 Sierra Leone: Vols. 8-13
 20-25
 31-32
 Swaziland*

JOURNAL OF ECONOMIC PERSPECTIVES

Addis Ababa: Vols. 1-8, nos. 1-4, 1987-1994
 Botswana: Vol. 1, 1987
 Eduardo Mondlane*
 Makerere: Vols. 2-4, 1988-1990
 Swaziland*

JOURNAL OF ECONOMIC STUDIES

Makerere: Vols. 3-6, 1968-1974 (Incomplete)
 Zimbabwe: 1974

JOURNAL OF ECONOMIC THEORY

Addis Ababa: Vols. 16-46, nos. 1 & 2, 1977-1988
Botswana: Vol. 50, 1990-
Makerere: Vols. 4-8, 1972-1976 (Incomplete)
Zambia: 1969-1993

JOURNAL OF ECONOMICS AND SOCIAL HISTORY

Addis Ababa: Vols. 1-20, 1957-1977

JOURNAL OF EUROPEAN ECONOMIC HISTORY

Addis Ababa: Vols. 5-22, nos. 1-3, 1976-1993

JOURNAL OF HUMAN RESOURCE

Addis Ababa: Vols. 29-30, nos. 1-4, 1994-1995

JOURNAL OF INDUSTRIAL ECONOMICS

Addis Ababa: Vols. 13-37, nos. 1-4, 1965-1988
Nairobi: "Up to 1990" (No further details given)

JOURNAL OF INTERNATIONAL ECONOMICS

Addis Ababa: Vols. 7-25, nos. 1-4, 1977-1988
Eduardo Mondlane*
Makerere: Vols. 1-6, 1971-1976 (Incomplete)

JOURNAL OF MACROECONOMICS

Nairobi: "Up to 1990" (No further details given)

JOURNAL OF MATHEMATICAL ECONOMICS

Addis Ababa: Vols. 7-17, nos. 1-3, 1980-1988
Botswana: Vol. 21, 1992-
Cape Coast*

JOURNAL OF MONETARY ECONOMICS

Addis Ababa: Vols. 7-22, nos. 1-3, 1981-1988
Botswana: Vol. 20, 1987-
Eduardo Mondlane*
Nairobi: "Up to 1990" (No further details given)
Sierra Leone: Vols. 1-6
Zambia: 1991-1994

JOURNAL OF MONEY, CREDIT AND BANKING

Nairobi: "Up to 1991" (No further details given)

JOURNAL OF POLITICAL ECONOMY

Addis Ababa: Vols. 64-71, 1956-1963
 74-100, 1966-1992
 102-103, 1994-1995

Botswana: Vol. 89, 1991-

Eduardo Mondlane*

Ghana: Vol. 82, 1974, p.1098
 91, 1983, pp.1055-1066

Lesotho: Vols. 67-79, 1959-1971

81-83, 1973-1975

92, 1984

95, 1987

101-102, 1993-1994

Makerere: Vols. 38-98, 1930-1990 (Incomplete)
 1996-

Malawi*

Sierra Leone: Vols. 66-75

77-79

95-98

Swaziland *

Zambia: Vols. 75-101, 1967-1993

Zimbabwe: Vol. 51, 1943-

JOURNAL OF PUBLIC ECONOMICS

Makerere: Vols.1-5, 1972-1976

JOURNAL OF PUBLIC FINANCE AND PUBLIC CHOICE

Botswana: Vol. 1, 1991-

JOURNAL OF REGIONAL SCIENCE

Eduardo Mondlane*

Nairobi: "Up to 1990" (No further details given)

JOURNAL OF THE ROYAL STATISTICAL SOCIETY

Nairobi: "Up to 1991" (No further details given)

KYKLOS

Nairobi: "Up to 1992" (No further details given)

LABOUR AND SOCIETY

Swaziland*

LAND ECONOMICS

Addis Ababa: Vols. 63-71, 1987-1995

NATIONAL INSTITUTE OF ECONOMIC REVIEW

Nairobi: "Up to 1990" (No further details given)

OXFORD BULLETIN OF ECONOMIC AND STATISTICS

Cape Coast*

Nairobi: "Up to 1991" (No further details given)

Zimbabwe: 1973

OXFORD ECONOMIC PAPERS

Addis Ababa: Vols. 1-40, nos. 1-3, 1949-1988

Cape Coast*

Eduardo Mondlane*

Makerere: Vols. 1-31, 1949-1979

37, 1985

42, 1990

Nairobi: "Up to 1990" (No further details given)

Swaziland *

POLITICAL AND ECONOMIC PLANNING

Makerere*

PROBLEMS OF ECONOMICS

Addis Ababa: Vols. 4-7, 1960-1965

10 -11, 1967-1969

18-27, 1975-1985

Makerere: Vols. 3-10, 1960-1968

12-19, 1970-1976

QUARTERLY ECONOMIC REVIEW OF AFRICA

Addis Ababa: Nos. 1966-1973

QUARTERLY ECONOMIC REVIEW OF UGANDA, ETHIOPIA

Addis Ababa: Nos. 1-4, 1974-1986

QUARTERLY JOURNAL OF ECONOMICS

Addis Ababa: Vols. 60-69, nos. 1-4, 1952-1955

Botswana: Vol. 79, 1965-

Lesotho: Vols. 73-89, 1959-1975

102-105, 1987-1990

Makerere: Vols. 21-61, 1906-1947 (Incomplete)

1996-

Malawi *

Nairobi: "Up to 1990" (No further details given)

Sierra Leone: Vols. 63-67

Swaziland *

Zambia: 1959-1994

Zimbabwe: 1953

REVIEW OF AFRICAN POLITICAL ECONOMY

Addis Ababa: Nos. 13-41, 1978-1-87

Makerere: Nos. 1-8, 1974-1980

49,1990

Swaziland*

REVIEW OF ECONOMIC STUDIES

Addis Ababa: Vols. 48-54, nos. 1-4, 1981-1988

Ghana: Vol. 24, 1956/57

Lesotho: Vols. 26-43, 1958-1976

Makerere: Vols. 1-57, 1933-1990 (Incomplete)

Nairobi: "Up to 1991" (No further details given)

Sierra Leone

Swaziland*

Zambia: 1992

Zimbabwe: 1933

REVIEW OF ECONOMICS AND STATISTICS

Addis Ababa: Vols. 48-70, nos. 1-4, 1966-1970

Botswana: Vol. 47, 1965-

Lesotho: Vols. 53-56, 1971-1974

64-72, 1982-1990

Makerere: Vols. 30-54, 1943-1972

Malawi

Mauritius*

Nairobi: "Up to 1991" (No further details given)

Swaziland

Zimbabwe: 1943

REVIEW OF RADICAL POLITICAL ECONOMY

Nairobi: "Up to 1988" (No further details given)

REVUE ECONOMIQUE Makerere: Vols. 1-5, 1966-1970

RICERCH E CONOMICHE Addis Ababa: Vols. 21-33, nos. 1-4, 1966-1979

ROYAL STATISTICAL SOCIETY JOURNAL.

SERIES B. METHODOLOGICAL Zimbabwe: 1948

SAVINGS AND DEVELOPMENT Botswana: Vol. 2, 1978

Eduardo Mondlane*

SCOTTISH JOURNAL OF POLITICAL ECONOMY

Makerere: Vols. 4-26, 1957-1979

32, no. 1, 1985

37, nos. 4, 1990

SOCIAL AND ECONOMIC STUDIES

Makerere: Vols. 1-42, 1953-1991 (Incomplete)

Nairobi: "Up to 1987" (No further details given)

SOUTH AFRICAN JOURNAL OF ECONOMICS

Addis Ababa: Vols. 31-42, 1963-1974

45-46, 1977-1978

49-56, 1981-1988

Makerere: Vols. 1-44, 1933-1976 (Incomplete)

Namibia: Vol. 55, 1987-

Swaziland*

SOUTH AFRICAN LABOUR BULLETIN

Namibia: 1987-

Swaziland*

STATISTICAL NEWS Zimbabwe: 1968

STATISTICAL THEORY AND METHODS ABSTRACTS

Zimbabwe: 1964

TRENDS IN WORLD ECONOMICS Addis Ababa: No. 76, 1994

WORLD BANK ECONOMIC REVIEW Eduardo Mondlane*

Ghana: Vol. 3, no. 3, 1989

Kenyatta: Vol. 1, no. 1, 1986

3, nos. 2-3, 1989

4, nos. 1-3, 1990

5, nos. 1-3, 1991

6, nos. 1-3, 1992

7, nos. 1, 3, 1993

8, nos. 1-3, 1994

9, nos. 1-2, 1995

Lesotho: Vols. 1-5, 1986-1991

Makerere: Vols. 1-8, 1987-1994 (Incomplete)

Malawi*

WORLD BANK RESEARCH OBSERVER

Ghana: Vol. 2, no. 2, 1987

Kenyatta: Vol. 5, no. 2, 1990
 6, nos. 1-2, 1991
 7, no. 1, 1992
 8, no. 1, 1993
 9, no. 1, 1994
 10, no. 1, 1995

WORLD DEVELOPMENT

Botswana: Vol. 8, 1980-
 Ghana: Vol. 11, 1983, p. 601
 Lesotho: Vols. 8-18, 1980-1990
 Malawi*
 Nairobi: "Up to 1991" (No further details given)
 Namibia: Vol. 17, 1989-
 Swaziland*
 Zambia: Vol. 19, 1991-

YALE ECONOMIC ESSAYS

Addis Ababa: Vols. 7-8, nos. 1-2, 1967-1969
 Makerere: Vols. 1-4, 1961-1964
 6-10, 1966-1970

Appendix VI

IBM Botswana

IBM Plaza Haile Selassie Road
Gaborone Botswana
PO Box 41034 Gaborone Botswana
Telephone: (267) 301339
Fax: (267) 301181

26th July, 1996

Dr B.Y. Boadi
University of Botswana
Dept. of Library and Information Studies
Private Bag 0022
Gaborone

Dear Dr Boadi,

Re: Price Estimate For PCs in Africa

Enclosed please find the requested information which we hope will assist you in completing your report.

We do not have access to the prices used in the different countries, as these are set by independent Business Partners. Consequently, we have converted the Botswana prices excluding duty and sales tax. The rate used is 1 US\$ equals 3.5 Pula.

On the list is stated five word processors. Word Processors have for several years been replaced by personal computers, which are much more flexible. Consequently, we have replaced the word processors with PC's and printers. We hope our estimate is meeting your expectations.

Best regards,

Jorgen Bjere
IBM Botswana - GM

University	Requirements	\$Price
Addis Ababa	2 PCs 1 CD-ROM drive	2,940 324
Botswana	No expressed needs	
Cape Coast	3 CD-ROM drives	972
Dar es Salaam	No specific requirements indicated	
Eduardo Mondlane	2 PCs 1 CD-ROM drive	2,940 324
Ghana	12 PCs 4 CD-ROM drives	17,640 1,296
Kenyatta	2 PCs 1 CD-ROM drive	2,940 324
Lesotho	6 PCs	8,820
Makerere	6 PCs 10 CD-ROM drives	8,820 3,240
Malawi	10 PCs 1 CD-ROM drive 5 Word Processors	14,700 324 n/a
Mauritius	No expressed needs	
Moi	No expressed needs	
Nairobi	12 PCs	17,640
Namibia	No expressed needs	
Sierra Leone	6 PCs 6 CD-ROM drives	8,820 1,944
Swaziland	No specific requirements indicated	
Zambia	No specific requirements indicated	
Zimbabwe	4 PCs 4 Printers	5,880 695

Specifications are as follows:-

PCs	-	Appendix A
CD-ROM drives	-	Appendix B
Printers	-	Appendix C

Appendix A

IBM PC140 Personal Computer

Pentium 75MHz Processor

8MB of 70ns memory standard, maximum 128MB

635MB Hard Disk Drive

1.44MB 3.5" Diskette Drive

2 high speed Serial Ports (9-pin)

1 high speed Parallel Port (EPP/ECP capable)

4 slots / 4 bays

IBM 14" SVGA Colour Monitor

IBM Keyboard UK, IBM Mouse

IBM PC DOS 7.0, Windows 3.1

Operating System:

QAPLUS diagnostic software

Lotus SmartSuite for Windows (Lotus 123, Lotus WordPro, Lotus Freelance, Lotus Approach and Lotus Organiser)

1 Year Warranty

Appendix B

Internal CD-ROM drive

Quad speed

Appendix C

HP LaserJet 5L Laser Printer

Specifications include:

4 pages per minute.

600dpi with enhanced PCL5, REt (Resolution Enhancement Technology) plus microfine toner. 8,000 copies per month duty cycle.

1 Mbyte standard memory with HP Memory enhancement Technology which extends the capacity of the base memory to print documents of greater complexity than before, upgradeable to 2 Mbyte.

100 sheet multi-purpose input tray.

26 internal scalable typefaces.

Parallel interface with HP Bi-tronics capabilities.

Toner saving Economode.

Intelligently switches on or off.

1 Year Warranty

Appendix VII

XEROTech

Friday, July 26, 1996

African Economic Research Consortium
Nairobi, Kenya
C/O, University of Botswana
Department of Library and Information Studies

Attention: Dr. B. Y. **Boadi**

Dear Dr. Boadi,

PHOTOCOPIER AND MICROFILM DEPLOYMENT THROUGH AFRICA

Please find following our proposal for the deployment of XEROX Photocopiers, DUPLO Duplicators and Bell & Howell Microfilm Equipment through your offices in Africa.

The XEROX pricing offered is based on Rank Xerox preferential Diplomatic pricing and all equipment would be deployed and installed by Rank Xerox or Rank Xerox Distributors in the various territories throughout Africa.

Project Management and implementation would be through XEROTech in Botswana, Rank Xerox in Kenya and Rank Xerox in London.

All prices are quoted in US Dollars and are FOB European prices, excluding freight, duties and taxes. Also excluded are installation costs for the microfilm equipment. These are estimated at around US \$1,000 per site depending on complexity. All payments are to be made to Rank Xerox UK and all maintenance contracts for equipment will be made with the local XEROX agents .

We trust that the proposal is acceptable to your organisation and look forward to your acceptance of our offer and to detailed discussions that would allow us to finalise all pricing and product specifications.

We are,

Yours Faithfully
XEROTech (PTY) Ltd.
RUSSELL M. GITTLESON
(MANAGING DIRECTOR)



UNIVERSITY		Quantity	Unit Price	Price
Addis Ababa	XEROX 5435 Library Copier	1	\$ 8,575	\$ 8,575
	Microfilm Planetary Camera	1	\$7,850	\$7,850
	Microfilm Reader/Printer	1	\$11,000	\$11,000
	Microfilm Processor	1	\$6,500	\$6,500
	Microfilm Duplicator	1	\$13,200	\$13,200
Botswana	Microfilm Reader/Printer	2	\$11,000	\$ 22,000
Cape Coast	XEROX 5435 Library Copier	2	\$8,575	\$17,150
	Microfilm Reader/Printer	2	\$11,000	\$ 22,000
Dar es Salaam	XEROX 5435 Library Copier	2	\$ 8,575	\$17,150
Edwards Nw.	XEROX 5435 Library Copier	1	\$8,575	\$8,575
Ghana	XEROX 5435 Library Copier	2	\$ 8,575	\$17,150
	Microfilm Reader/Printer	2	\$11,000	\$22,000
Kenyatta	XEROX 5435 Library Copier	1	\$8,575	\$8,575
	A3/A4 Digital Duplicator/Scanner	1	\$8,000	\$8,000
Lesotho	XEROX5435 Library Copier	4	\$8,575	\$34,300
Makerere	XEROX 5435 Library Copier	1	\$8,575	\$8,575
	Microfilm Reader/Printer	1	\$ 11,000	\$11,000
Malawi	XEROX 5435 Library Copier	5	\$8,575	\$42,875
Mauritius				\$0
Moi				\$0
Nairobi	XEROX 5435 Library Copier	1	\$8,575	\$8,575
Namibia				\$0
Sierra Leone	XEROX 5435 Library Copier	1	\$ 8,575	\$ 8,575
	Microfilm Planetary Camera	1	\$ 7,850	\$ 7,850
	Microfilm Reader/Printer	1	\$11,000	\$11,000
	Microfilm Processor	1	\$ 6,500	\$6,500
	Microfilm Duplicator	1	\$ 13,200	\$ 13,200
Swaziland	XEROX 5435 Library Copier	1	\$8,575	\$8,575
	Microfilm Reader/Printer	1	\$11,000	\$11,000
Zambia	XEROX 5435 Library Copier	1	\$8,575	\$8,575
Zimbabwe	XEROX 5435 Library Copier	4	\$ 8,575	\$34,300
			Total	\$404,625

THE DOCUMENT COMPANY
RANK XEROX

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XEROTech, Private Bag 0063, Gaborone, Botswana
Tel: (267) 30-2366
Fax: (267) 30-2367